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Hawaii Medical Journal

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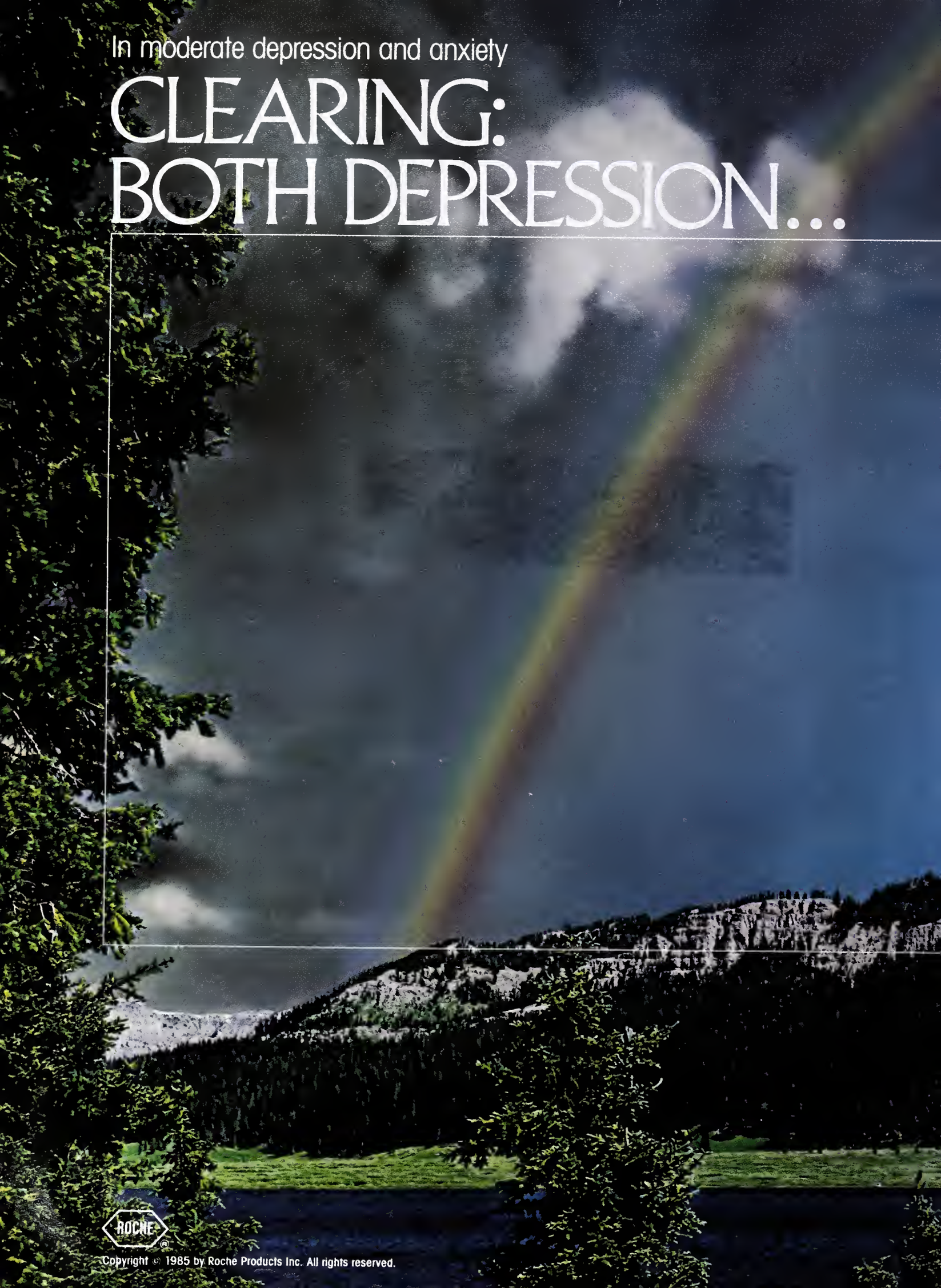

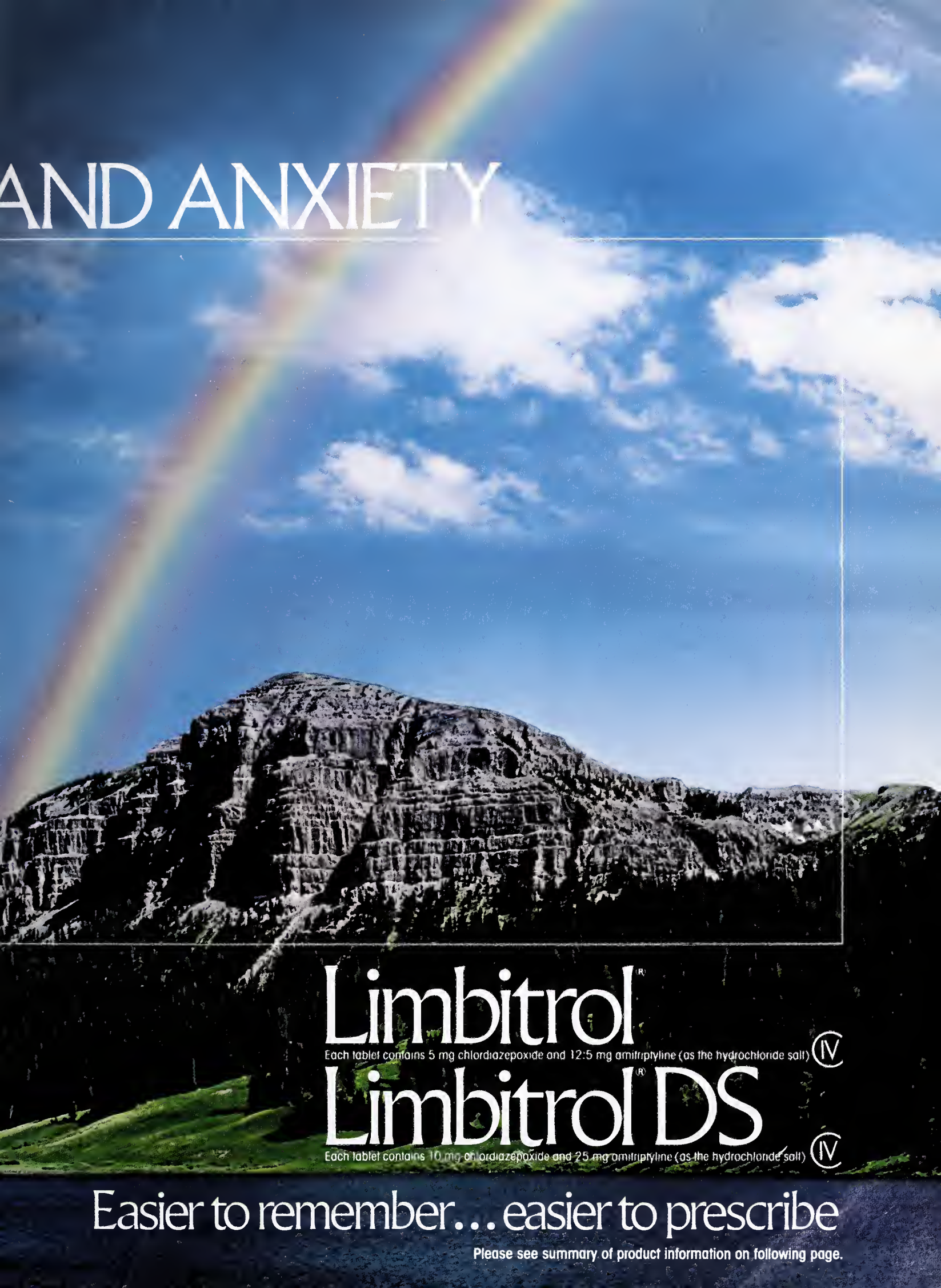
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Editorials

This Is My Mana'o

What impressed me at the Sept. 6 HMA Council meeting was Calvin Sia's earnestness in involving HMA in doing something about the child abuse problem. We are all proud of Sia and bask in the reflected glory his role in the national scene has brought to Hawaii and to HMA. Congress has granted funds to establish a protocol via study committees; Sia, through his position with the American Academy of Pediatrics and his connections with Sens. Inouye and Matsunaga, has succeeded in directing some of that study money to Hawaii, which will be one of the pilot programs.

Of concern, however, is the role of the physician who treats children. One of the most difficult situations in the practice of medicine arises when the physician, who is above all the patient's advocate — in these instances, the child *and* the allegedly abusive parents are all his or her patients — must be the accuser as well. Under the law, the physician may be punished severely if the suspected child abuse is *not* reported (witness the Matsuura case in Hilo last year).

Are we to become informers against our fellow humans — and on the basis of unproven, unadjudicated suspicions? U.S.S.R., make room for us; we are emulating your ways!

The council voted yes, to accept the roll of grantee for the $2 million for one year.

Bill Hindle informed the council that in Canada, where the contingency fee is not in vogue, the incidence of medical malpractice claims and the size of the awards are rapidly rising, as in the U.S.A.

The issue is of such major proportion that Hindle has appointed a blue-ribbon task force to coordinate the several HMA committees and people who are working on it. The 129th Annual Meeting of the House of Delegates in Kona had an important agenda relative to this issue that attracted a good attendance. Members should take it seriously and not fumble the ball!

Russ Stodd, our new president, generously extolled the leadership that Bill Hindle has provided HMA — this council meeting was the last under his administration. The council responded by giving Hindle a big hand.

J.I. Frederick Reppun, MD
Editor

Are You Healthy? Part I

Who really wants to know?

"Why should I come see you, Doc, when I feel fine?" is what the male adult patient says, for the most part, in explanation of the long interval since his last visit to his physician for a cold that persisted at that time.

Not so, in the instance of a female patient who is an adult, particularly one with a child or children in tow, or whose childbearing years have passed. Women are much more faithful about coming in for their annual physicals, to include breast checks and pap smears. All too often, the latter see their OB-Gyn and that's all they get!

The gamut of medical evaluations — "health checks," if you

will, runs wide.

At one end is the very thorough initial or interval history, a detailed systems review; an update of the family history; a review of medications taken habitually, including OTC drugs (Over-The-Counter), vitamins, so-called health pills, potions and food (the American is a born sucker for getting and taking any nostrum that will boost his/her sex life!), etc.

"Do you smoke, what and how much? Do you drink beer, wine or hard liquor, and how much? What do you do for strenuous exercise? Do you see your dentist regularly? Or episodically, as the crises arise? What about your eyeglasses: New or old? When and whom did you consult? When did you take and pass or fail your driver's re-license?"

If a physician does nothing else to his patient, he will have a comprehensive picture in his mind's eye (and recorded on the clinical chart plainly, unequivocally and *legibly!)* of whether his patient is healthy-well or whether he or she has problems that need further critical examination.

A so-called "health screen," in which the patient checks off questionnaires and then goes through a mill of tests done by paramedics, students or others — perhaps including a battery of blood and urine tests, or even X-rays, EKG and spirometry — is expensive in time, energy and dollars. The cost/benefit ratio may not be worth the effort. Such an impersonal conveyor belt approach, even with a physician at the far end to review and evaluate the results, may even miss important markers of impending ill health, while giving the patient a false sense of good health.

The dangers herein are compounded if shortcuts are taken.

(To be continued.)

J.I. Frederick Reppun, MD
Editor

****

Letter to the HMA President

I am pleased to send warm greetings and congratulations to the members of the Hawaii Medical Association gathered for your annual meeting. As you approach the 130th anniversary of your organization, you can look back with pride on your legacy of accomplishment.

Truly, your organization has been instrumental in helping America achieve and retain a place of leadership in the world of medicine. Your educational and professional programs and services help to ensure the future health of Americans, and guarantee the continuing preeminence of our nation's advanced medical institutions and practitioners.

You have my best wishes for a successful and productive conference. God bless you.

Ronald Reagan
President, U.S.A.

****

Re: Kanyaku Imin Special Issue

Editor:

Many thanks to you and your staff for the superb job that all of you did in producing the commemorative issue on the 100th Anniversary of the Kanyaku Imin, acknowledging the research efforts at Kuakini Medical Center.

The issue looks great and we are very appreciative of your time and effort.

Abraham M.Y. Nomura, MD
Director,
Japan-Hawaii Cancer Study,
Kuakini Medical Center

Re: Gratis Publications

Editor:

Reviewing the medical, clinically oriented, scientific and miscellaneous journals that are mailed to me, I note that I am the recipient of 32 journals — entirely gratis. For the benefit of my colleagues, and, particularly, for recently established physicians, I am appending this list.

Among the many free newsletters and bulletins that I also receive, I have selected the best, most medically timely; they are marked with a bullet.

This author cannot guarantee that the reader, upon request, will receive every copy on this list. Certain of these might have been accrued during my 36 years in private and in government (military) practice through "grandfather" gratuities. Nevertheless, for a personal subscription of any of these periodicals, I recommend that one ask for a sample copy and for a questionnaire to prove one's credentials for future issues.

Louis J. Polskin, Ph.D., MD
Adult Outpatient Clinic,
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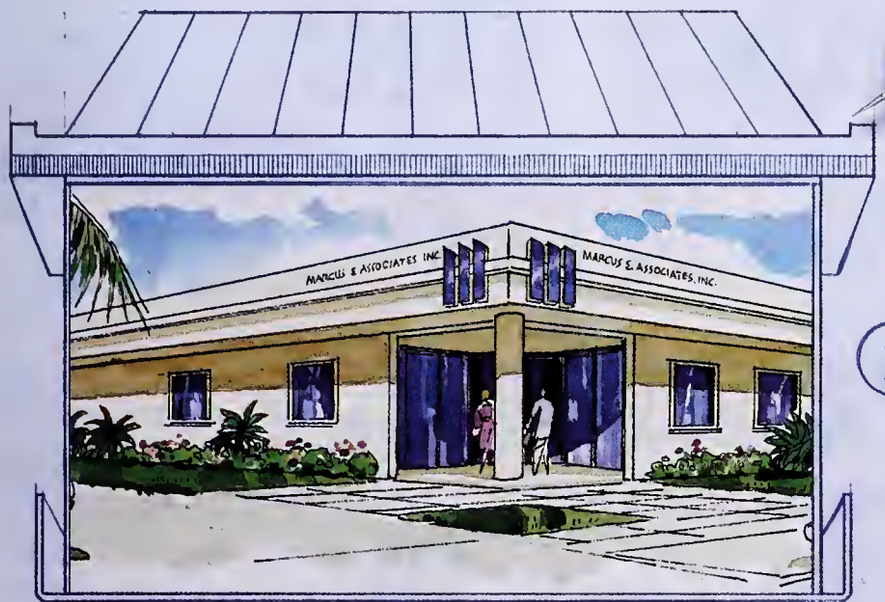

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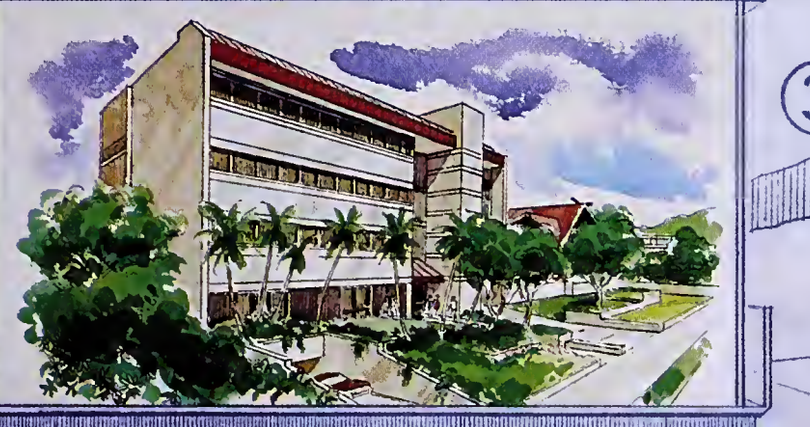

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(Continued on page 12)

The Syndrome of Immediate Reactivities (Contact Urticaria Syndrome) An Historical Study from a Dermatology Practice III. General Discussion and Conclusions

David J. Elpern, MD*

In Part I and Part II of this study, data was presented on the epidemiology of the Syndrome of Immediate Reactivities (SIR) in a dermatology practice. Twenty-six percent of a racially mixed population were aware of substances that elicited immediate symptoms. Twenty-nine percent of the females and 21% of the males questioned responded positively.

Age and race did not appear to be predisposing factors. Atopy and drug reactions were reported almost twice as frequently in the group that had a history of immediate hypersensitivity as those that did not.

An attempt is made in this article, Part III, to discuss and explain these findings, and to assign a role to SIR in the etiology of some inflammatory diseases of diverse organ systems.

Parts I[1] and II[2] of this study dealt with data collected from 1,020 consecutively accessioned dermatological patients questioned for a history of the Syndrome of Immediate Reactivities (SIR). Most previous reports from the dermatologic literature have called this the Contact Urticaria Syndrome (CUS). However, I feel that this eponym has become too restrictive. Information relating to age, sex, race, implicated substances, personal and family history of the various atopic parameters, and history of drug allergy have been presented previously. Part III will attempt to analyze the significance of these findings as they relate to dermatology in particular, and medicine in general.

Since the term contact urticaria (CU) was coined in 1975,[3] it has become evident that only a portion of those affected manifest either localized or generalized urticaria (LU, GU). In this study, symptoms recognized by patients included pruritus (P), dermatitis (D), localized and generalized urticaria, bronchial asthma (BA), orolaryngeal edema (OR), rhinoconjunctivitis (RC), gastrointestinal disorders (GI), anaphylactic reactions (AR), headache (HA), and sneezing. HA has not been mentioned as a manifestation of this syndrome in previous reviews;[4, 5] however, it is recognized as a feature of immediate food hypersensitivity[6] which is a subset of CUS. One patient complained of sneezing when exposed to bright sunlight. Photic sneezing has been reported.[7] It is a consequence of a reflex increase in cholinergic activity of the nasal mucosa after stimulation of the nasociliary nerve by light. Photic sneezing is probably not a form of CUS, but it is an immediate reactivity and, therefore, it is mentioned.

From the preceding, it can be appreciated that the term CUS is a misnomer because it is too restrictive. A broadly inclusive term is needed that encompasses the varied immediate reactions recognized in the target-organ systems — the skin, the vasculature, and the respiratory and gastrointestinal tracts. I feel that the syndrome of immediate reactivities (SIR) is a more satisfactory name.

It is interesting that the targets of SIR are the sites of proposed lymphatic subsystems, e.g. the skin associated lymphatic tissue (SALT), the gut associated lymphatic tissue (GALT) and the bronchus associated lymphatic system (BALT). Thus, SIR may be an aberration of these otherwise protective systems.

Twenty-six percent of the population sampled were aware of substances that elicited reactions within one hour of exposure. (See Table 1.) This number is probably higher than would be found in a sample of the general population, but alerts us to the fact that immediate reactions to a wide variety of substances can play a crucial role in the etiology of cutaneous disease, e.g. P, D, atopic skin disease (ASD) and urticaria. Similarly, physicians in all disciplines encounter patients with SIR; however, the necessary questions are rarely asked, and non-specific labels such as dermatitis not otherwise specified, irritable bowel syndrome and chronic urticaria are then used. Along this line, Jones et al. found specific food provoked gastrointestinal symptoms in 14 of 21 patients with irritable bowel syndrome.[8] Similarly, there is recent evidence that some substances that cause immediate pruritus on contact elicit, after 24 hours, the cutaneous changes associated with ASD in the absence of rubbing or scratching.[9] This delayed appearance of dermatitis suggests a role for SIR in the etiology of some cases of ASD. Thus, in some cases, "the itch that rashes" may not need rubbing and scratching as an initiating process.

An important finding of this study was that the site of symptoms was frequently different from the organ of contact. Food ingestion could result in P or D, inhalents in urticaria, and topically applied substances in BA. Studies on food hypersensitivity report similar results.[10] This has implications for history-taking

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TABLE 1. Incidence of Contact Urticaria in Study Population

Age	Number	% + for CUS
0-9	76	14
10-19	109	28
20-29	252	27
30-39	221	27
40-49	88	34
50-59	114	24
60-69	80	25
70-79	54	26
80-89	14	7
90 and over	2	0

TABLE 2. Association of Atopy and CUS

	CUS (+)	CUS (-)
Number:	257	750
Personal History of Atopy:	46%	21%
Family History of Atopy:	44%	27%
Personal or Family History of Atopy:	60%	37%

TABLE 3. Ten most commonly implicated causes of contact urticaria syndrome in 1,011 dermatology patients

Substance	No. of times implicated
1. Grasses, N.O.S.*	24
2. Cats	21
3. Wool	17
4. Shellfish, N.O.S.	16
5. Dust	12
6. Mango (Mangifera)	11
7. Dog	9
8. Crab	8
9. Milk	8
10. Buffalo grass (Stenotaphrum)	7
Detergent	7
Saltwater	7

* N.O.S. = not otherwise specified

TABLE 4. History of Drug Reaction in Study Population

	CUS (+)	CUS (-)	Total
Number:	74	227	301
Drug Reaction:	25	39	64
Percent with Drug Reaction:	34	17	21

in patients suspected of having SIR.

Authorities on CUS all recognize that atopy appears to be more common in these patients. No epidemiological study has previously been done to verify this. The data collected here confirm this supposition and show that both a personal and family history of atopy are much more common in patients who have histories of SIR than those without. (See Table 2.) This should come as no surprise because atopy is characterized by immediate reactions to a group of substances and is, at least in part, mediated by IgE. Not all atopic manifestations can be explained by IgE, and it is becoming apparent that non-immunologic mechanisms are also important in eliciting atopic symptoms.[11] A discussion of the role of immune and pharmacologic mechanisms in the pathogenesis of the atopic diseases is beyond the scope of this work, but the concept that both play a role is important for the understanding of CUS and SIR. Until more basic work is done, assigning an etiology as immune or non-immune may not be realistic.

One way of interpreting the data on the relationship between SIR and atopy is that the latter is a subset of the former. Atopic individuals appear to react to a limited group of commonly encountered antigens.[12] These encompass certain foods (milk, eggs, nuts, shellfish, wheat), inhalents (grasses, pollens, molds, cat dander, dust mites) and contactants (sweat, grasses, wool). Of the 10 most implicated substances reported as eliciting immediate symptoms in the population studied (See Table 3), all but one are among those to which atopic persons commonly react. The exception, mangoes (Anacardiaceae), may represent a previously unrecognized antigen to which atopics respond. Mango dermatitis, as is commonly recognized in Hawaii, is a cell-mediated, contact dermatitis which begins approximately 24 to 48 hours after re-exposure. This clinical picture is not seen in patients born in the Islands because they ingest the resins at an early age, thus inducing specific immune unresponsiveness. However, 11 Hawaii-born individuals were aware of immediate symptoms (P, D, LU, RC) after contact with mango skin, leaves or bark. SIR to mango appears to be common, and may be found in a defined group of patients, i.e. atopics. This is a suggestion, and should not be construed as dogma.

I propose that atopics as a group commonly manifest the SIR and do so to a small, relatively well-defined group of antigens. These reactions are both immune (IgE-mediated), non-immune (mediated by histamine and prostaglandin release), and mixed. In addition, many individuals who are not atopic acquire SIR to a large number of substances with which they come in contact, ingest, or inhale. These reactions are also

likely to be immune, non-immune, or mixed. It is not clear whether normal individuals are as likely to have chronic disease as a result of SIR as are their atopic counterparts.

During the course of this study, it became obvious that patients who were aware of SIR seemed more likely to complain of drug reactions. The last 300 patients in the study were specifically questioned and a convincing history for drug reaction was elicited in twice as many patients with SIR as in those without. (See Table 4.) This needs to be confirmed by other studies, but the findings are not unexpected. Persons with the SIR are more likely to develop immediate, immune and non-immune reactions to a large number of encountered substances. From the data collected in the present study, these people also appear to have an increased incidence of similar reactions to drugs that are ingested, inhaled, and applied topically. There is evidence that atopics are more likely to manifest immediate-type drug reactions than non-atopics,[13] and the findings here expand this concept.

The facts presented suggest that physicians should exert some caution in prescribing medication to atopics and patients with a history of SIR, because these individuals may be more likely to have immediate reactions. Whether these reactions are apt to be elicited by a small predictable number of medications, e.g. the penicillins, sulfonamides, contrast media, salicylates, etc., or by a host of unrelated substances is as yet unanswered. This relationship may be more apparent than real. It is possible that the high incidence of drug reaction in patients with SIR reflects the disproportionate number of atopics in this group, rather than indicating a direct relationship between a history of SIR and drug reaction. For the time being these data are intriguing but need further confirmation.

In conclusion, SIR (CUS) is a common finding in unselected, randomly selected, dermatologic patients. Because of this, it should be sought as a contributory cause for diseases in the dermatitis/eczema group, urticarias and unexplained pruritus. A question regarding history of SIR might well become a part of the standard dermatology-patient encounter. Similarly, physicians in other disciplines might benefit their patients by asking for a history of immediate reactivities, as this may explain "idiopathic" respiratory, gastrointestinal, or even neurologic disease.[14] It must be remembered that the location of the signs and symptoms of SIR is very often different from the site of contact with the causative agent. Keeping this in mind will ensure that the proper questions are asked. A diagnosis of SIR should also alert physicians to the possibility that such patients are more likely to develop immediate-type drug reactions. This knowledge may help to avert serious and occasionally life-threatening events.

Unfortunately, other than avoiding the putative substances, little can be done in the way of preventing SIR in susceptible individuals. Oral cromolyn sodium may come to play a role in the management of patients with food hypersensitivity,[15] ASD[16] and chronic urticaria,[17] but it cannot be recommended for routine use at this time. Even though specific therapeutic modalities still elude us, recognition of this common but not-well-recognized group of diseases will improve a physician's diagnostic acumen, and make the management of some frustrating chronic and idiopathic diseases easier.

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New York, NY 10016

Over the Editor's Desk

Hospital Equips Independent Ambulances with Cellular Mobile Telephones — Cincinnati — In a first-of-its-kind program, Ameritech Mobile Communications, Inc., the company that introduced cellular service in the U.S. in 1983, and Cincinnati's Providence Hospital have teamed up to equip 27 ambulances owned by 14 independent ambulance companies with cellular mobile telephones. "Before the mobile phones were installed, drivers had to radio through a dispatcher to call anyone and could only contact people who were on the ambulance radio system. Now, for the first time, ambulance squads can call directly to the poison center, victim's family, physicians and to hospitals — to anyone who has a telephone. I think this program has potential that we don't even know about yet," said Dr. Allan Zobay, Providence Hospital's vice president of medical affairs.

One driver who'd already had a cellular phone installed in his ambulance reported that he'd picked up a young child who'd been hit by a car. Zobay reported that the driver used the phone to call the victim's parents on the way to the hospital and was able to give the child's parents reassurance by letting the girl talk directly to her mother. "It sure helped to calm the parents' fears when their daughter picked up the phone and said 'It's OK, Mommy, I'm all right.' "

* * *

ROCKVILLE, Md. — Biotech Research Laboratories, Inc., has begun clinical evaluation of a new HTLV-III (Acquired Immune Deficiency Syndrome) Western Blot test kit, which it developed.

Thomas M. Li, president of Biotech, said, "The Western Blot test kit, the first one developed, is immediately available for research use on a limited quantity basis.

"Upon successful completion of clinical evaluations, the kit could be commercially marketed to blood banks, hospitals, and clinical laboratories around the world as early as this spring."

The new kit, which detects antibodies to HTLV-III viral antigens in human plasma or serum, is designed to confirm sero-positive cases resulting from the ELISA mass screening test.

The Western Blot test is a serological test utilizing electrophoretic separation of the viral proteins to provide more specific identification of the HTLV-III antibodies than the ELISA mass screening test.

HTLV-III, or Human T-Cell Lymphotropic Virus Type III, is as-

Hawaii Academy of Family Physicians' Newsletter

Don and Marlies Farrell

Membership News

We welcome several new members to HAFP this month: Drs. Robert Cary and David Grayson are new Active members. Dr. Keith Haden holds Dual-Active membership in HAFP and the Uniformed Services chapter. Dr. Harrison Fisher has transferred here from New Jersey and is an Active member also. And new Student members are Gerald Taitague, a freshman, and John Lee, May Okihiro, Pamela Prescott-Smith and Paula Wyatt, sophomores. We are happy to have them join us.

Congratulations are in order for Cedric Yoshimoto, whose Affiliate membership was upgraded to Active; Dr. Bernard Chun, who becomes chief of the Department of Family Practice at Queen's; and Dr. Nathan Wong, who succeeds Dr. Donald Farrell as chief, Department of Family Practice, at Kaiser. And on the national level, Dr. Otis R. Bowen is President Reagan's appointee to the position of secretary of the Department of Health and Human Services; he is an Academy member and longtime family physician.

Dinner Meeting

The November dinner meeting at the home of Dr. and Mrs. Howman Lam featured a most interesting educational program. Dr. Scott Ekdahl, a Tripler FP, gave a presentation on "Nutritional Quackery — the Great American Ripoff"; Kurt Butler and Alicia Leonhard of the Oahu Quackery Council dealt with health fraud matters in general. They presented an amazing array of fraudulent practices perpetuated on a public often all too eager to believe even the most outlandish and outrageous claims.

Billions of dollars are spent annually by the victims on diets and so-called cures which in many instances are not only useless but outright dangerous. It is important for family physicians to be knowledgeable about health fraud practices in order to assist their patients in avoiding them.

Annual Meeting & Seminar

If you have not already done so, please send in your registration for the 1986 Annual Meeting and Seminar as soon as possible. It will be at the Hilton Hawaiian Village Feb. 22 and 23. The seminar will be devoted to orthopedics on Saturday and rheumatology on Sunday morning. The banquet on Saturday evening will include the election and installation of officers, delegates and councilmembers. Dr. J.I. Frederick Reppun will honor a family physician on the 50th anniversary of his entering practice.

The luncheon on Saturday will feature a presentation on "Medical Marriages." Registrants are urged to invite their spouses and significant others to the luncheon. There is a nominal charge for guests, and pre-registration is necessary. For further information, call 235-3115.

Hawaii Review '87

The first planning session for another joint meeting with our Canadian colleagues in February 1987 was held in Vancouver, and plans are well under way for another successful "Hawaii Review." The theme will be "Family Practice — A Specialty in Breadth" and the meeting will include four days devoted to infectious disease, immunology, neurology and cardiovascular disease. We look forward to another excellent meeting Feb. 12 through 17, 1987!

Don't Forget

The Health and Fitness Fair is set for Jan. 24 through 26 at Neal Blaisdell Center. HAFP will be located in booth No. 71. It is not too late to volunteer your time, we are looking for members to man two-hour shifts. Please call 235-3115.

HAPPY NEW YEAR!

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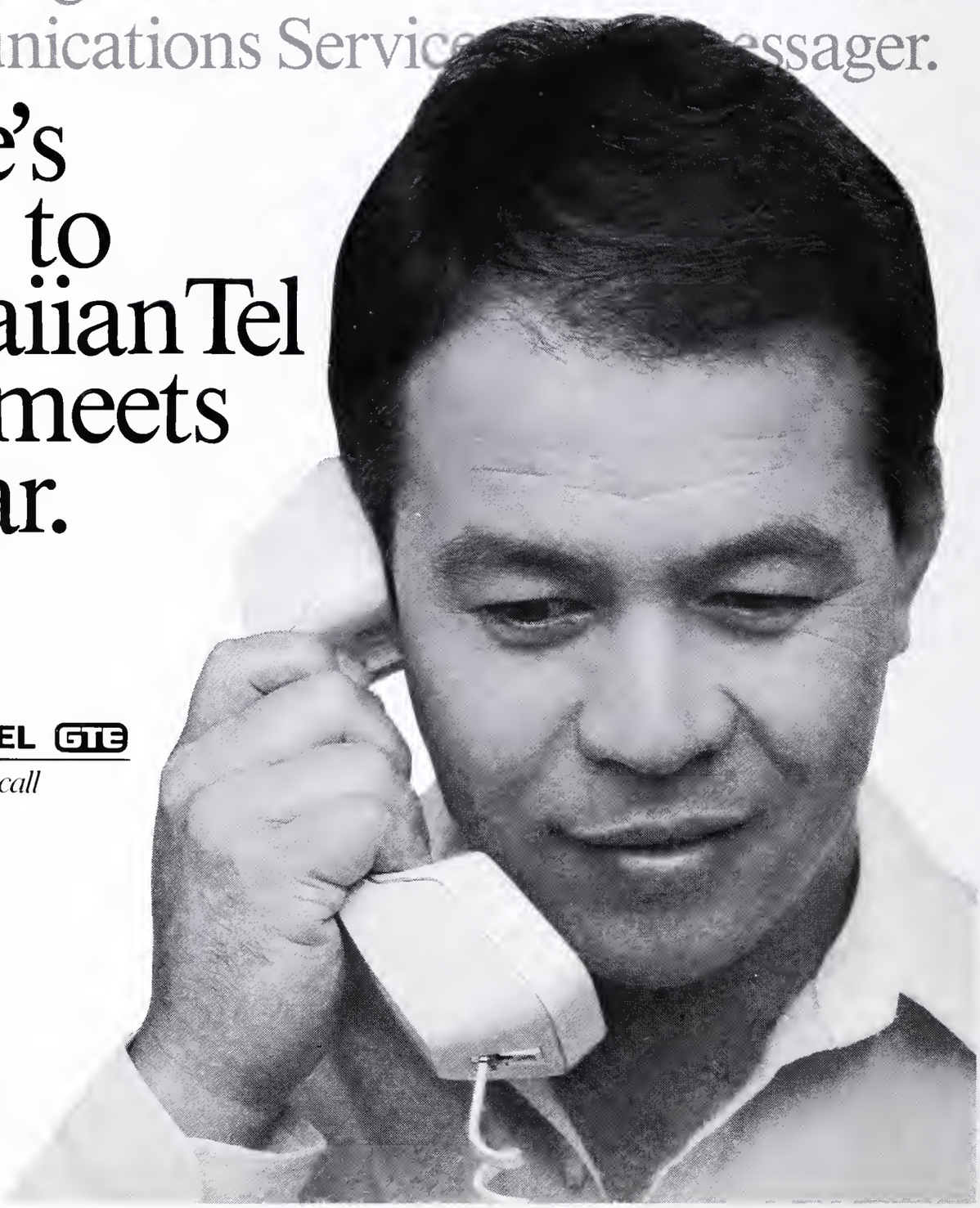
There's more to HawaiianTel than meets the ear.



HAWAIIAN TEL GTE

Beyond the call

Chest Pain and Hypertension Following Myelography

Fortunato V. Elizaga, MD, F.A.C.P.*
Elizabeth L. Abinsay, MD

A 57-year-old man had sudden onset of severe chest pain and hypertension 32 hours following iophendylate (Pantopaque) myelography. Serial electrocardiograms and cardiac enzymes were normal, as was the chest X-ray.

Chest pain gradually decreased in 24 hours. Hypertension was transient and did not require continuous antihypertensive treatment. Hypersensitivity to iophendylate is postulated.

Iophendylate (Pantopaque) myelography is a widely used roentgenologic examination of the spinal cord that has been in vogue for more than four decades. Reactions attributable to the contrast medium, particularly of the arachnoid, although uncommon, have been reported in the past. Headache and backache, which can be due to lumbar puncture per se, are commonly noted following myelography. We had the experience of taking care of a patient who developed severe chest pain and hypertension following myelography, a reaction which has not been previously described.

Case Report

A 57-year-old man was admitted to St. Francis Hospital because of persistent low back pain following a car accident three weeks earlier. There was no history of chest pain, hypertension, or allergy. Physical examination on admission revealed a positive Laseque sign bilaterally. The remainder of the examination was normal.

Routine laboratory tests on admission together with a chest X-ray and EKG were all normal. Iophendylate myelography was done and it showed a herniated nucleus pulposus at L5-S1. Thirty-two hours after the myelography, the patient developed a sudden onset of severe, crushing-like pain across his chest, which radiated to the neck, both arms, and abdomen. In addition, he had numbness of the medial side of both arms, dizziness, a choking sensation, palpitation, and pain in his back and legs.

Physical examination revealed an alert, middle-aged man in acute distress. His blood pressure was 200/120 mm Hg; pulse, 100 beats per minute; respiratory rate, 24 per minute; and temperature, normal. There was no heart murmur or gallop rhythm. His lungs were clear. There was no pleural rub. The remainder of the examination was normal.

His EKG showed sinus tachycardia but was otherwise a normal tracing. His chest X-ray was normal. The arterial blood gas on room air showed a pH of 7.65, pO_2 of 91 mm Hg, pCO_2 of 20.5 mm Hg, and base excess -4. Morphine sulphate 5 mg and propranolol hydrochloride 1 mg were given intravenously. His chest pain subsided gradually and his blood pressure gradually became normal about five hours after the drugs were given. Serial electrocardiograms and cardiac enzymes revealed no abnormalities.

Comment

Iophendylate is an oil-based, iodinated medium which, when injected into the subarachnoid space, produces a prolonged elevation of CSF protein, a modest lymphocytosis and elevation of gammaglobulin.[1]

Backache and headache are the most common complaints following myelography.[2] They are presumed to be a consequence of an arachnoidal tear and the escape of cerebrospinal fluid into the extra-arachnoidal space. Both the severity and incidence of headache are closely related to the size of the needle used for the procedure. A reduced incidence has been demonstrated when smaller needles are used.

Rarely, severe reactions may occur presumably due to hypersensitivity of the patient to the iodized oil. The most commonly reported complication is an arachnoidal reaction. This is enhanced by the simultaneous presence of blood in the cerebrospinal fluid.[3] The blood may interfere with the coalescence of iophendylate, thereby promoting the formation of small droplets that are not visible with the spinal fluid and therefore quite irritating. Such a complication is generally manifested by backache and leg pain; they may occur 19 hours to as long as five years following myelography.[4] Pantopaque is slowly absorbed and has a tendency to become encysted, producing local arachnoiditis.[1] Unusual complications such as temporary blindness,[5] encephalopathy[6] and death[7, 8] have occurred. These were thought to be from hypersensitivity. A rare complication is pulmonary embolism,[9] which is thought to be due to venous drainage of Pantopaque-contaminated CSF via the intervertebral veins into the inferior vena and ultimately to the lungs.

The patient presented here developed severe chest pain associated with moderately severe hypertension. His chest pain gradually decreased, but it lasted for 24 hours. His hypertension was transient and did not require continuous antihypertensive treatment. Although pulmonary emboli could not be completely excluded, his clinical course was not suggestive of pulmonary emboli. The temporal relationship between the myelography and the development of severe chest pain and severe hypertension associated with back pain and leg pain is highly suggestive of this cause and effect. The mechanism involved is obscure, but hypersensitivity to iophendylate can be postulated.

(Continued on page 21)

Accepted for publication September 1985.

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Honolulu, Hawaii 96817

Acceptance Speech by Incoming HMA President Russell T. Stodd, MD

Incoming President Russell T. Stodd gave this speech Oct. 12, 1985, at the 129th Annual Meeting of the Hawaii Medical Association in Kona, Hawaii.

As some of you know, I fly a small airplane. Both Leanna and I enjoy getting around the Islands, sort of ad lib. However, sometimes when one taxies out to the runway, the controller says, "Cleared for takeoff. Caution, wake turbulence, departing heavy jet." What he means is, your little airplane may be in for some rough air because a big jet just left.

Well, that's somewhat my feeling in taking over the president's chair at this time. "Caution, departing heavy jet." It is enough to say that the past year has seen some very large action in the Hawaii Medical Association.

As most of you recall, just 20 years ago there was no EPA to save us from contaminated Kula water. We had no OSHA to tell us that hot manure is slippery, and Medicare had just been born into the "Great Society." Virtually all decisions in regard to medicine in America were made by doctors. True, we had a few contract organizations, but throughout the country everything that happened in medicine — costs, hospitals, access, quality — fell under physicians' control. How far we have traveled in just 20 years, and "Are we better off?" as the candidate asked in the presidential debate? I fear not. In the meantime we have witnessed the construction of a huge bureaucracy, now called Health and Human Services or "Aich Two Ess," a noxious gas, which tells us which of our patients can go to the hospital, how long they can stay, what the charges for services will be and soon whether or not the patient deserves a given surgical procedure: "Multiple opinions desired, please."

The entire thrust of the government's premise is that doctors are not to be trusted with these decisions. Doctors have no regard for costs, must be bludgeoned into ensuring quality and order procedures, tests, and perform surgery for their own ends.

We are told the cost of medical care in America is too high. Figures are trotted out from 10, 20, 30 or even 40 years ago, with the gross national product as a yardstick. We sit still for this statistical foolishness while supposedly lolling around in unbelievable wealth. Two cars are the standard in every garage, many homes have a car for each driver, there are multiple television sets and videocassette recorders; $50 greens fees are common for a round of golf, dinner for four for $100 and home computers to keep track of household expenses.

We should emphasize to the media that medical care today is not the same package it was just 10 years ago, and that the cost for the finest medical care in the world is not outrageous. Surgical procedures are manifestly better, rehabilitation is much better and much quicker, therapeutic and diagnostic tools allow for a life expectancy of 74 years on the average for men in our state, and the figure is rising. Cataract surgery done in 1960, when I began my residency training, was closer to the procedure of 1885 than 1985, and now patients go home the same day.

Also, why is $10,000, that is spent to remove a bowel cancer in order to get a productive human being back to work in the White House, so bad, as compared with $15,000 spent on a new Buick being so good? The money is not lost in either case. It provides work for people, puts food on the table and remains in circulation. Yet we are supposed to cheer the auto buyer while we condemn the expense of productive medical care.

No profession, save perhaps the clergy, is as honorable, as ethical, as altruistically dedicated; yet no profession is so regulated, manipulated, controlled and threatened. Even our greatly respected and honored senior senator, who confided that he had dreamed of being an orthopedic surgeon before he went off to war, recently stated in an open meeting that he would not encourage his son to enter the practice of medicine, calling it overregulated, too threatened, too vulnerable. I was dismayed to hear his words, mostly because I do not feel that the battle for freedom is lost, nor am I that uptight about the future. And you must be in agreement with me, or you wouldn't be here.

So then, where are we? Satchel Paige said, "If you don't care where you are, then you ain't lost." Well, we care. Are we the captain of the ship? Or is some bureaucratic manual, prepared by accountants, actuaries and attorneys, the order of the day? Joe Boyle, AMA president last year, said it well and simply: "Enough is enough; it is time to say no!"

Not no to our patients, but no to agency doubletalk, no to broken Congressional promises and coercive regulations and no to rationing by budgetary restriction. No one has the right to ration medical care, except the patient himself (and all too often he isn't even allowed to do that). We are being coerced into considering complicated and redundant contractual arrangements — the alphabet maelstrom of DRG, IPA, PPO, COP, HMO — while the proponents speak in terms of market shares, advertising budgets, "hold harmless" agreements and cutoff dates.

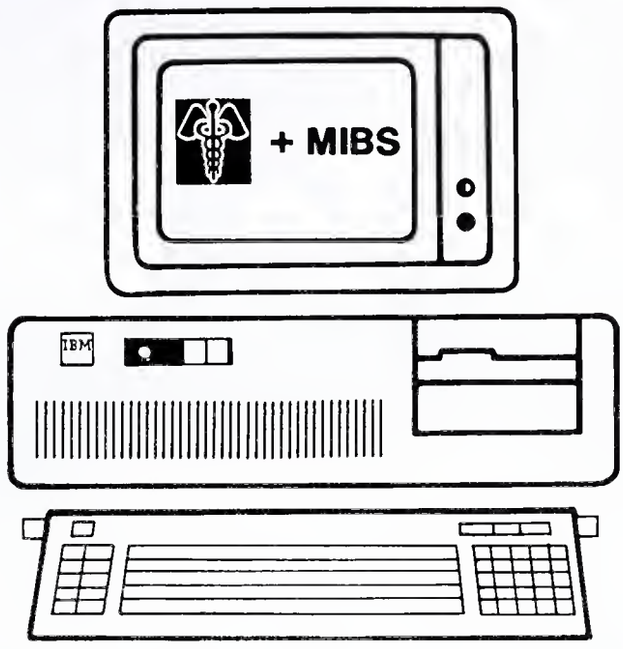
Competition? Sure, why not? But not competition in advertising, or disguised kickbacks, or cut-rate plans; not competition as a hustler. No, competition as a professional. We can and do deliver *competence, communication, compassion* and *caring.*

My mother didn't raise me to work under a government-sponsored contract. I cling to medicine as a cottage industry. Eighty percent of Hawaii's people must like it too, because that is how they select their doctors. It may be a small office or a large clinic, but the patient is the one who chooses.

We are a nation of immigrants, just one, two or three generations removed from a distant land; many of us were born in another country. So why did we come to America? Because this is the land of freedom, of individual opportunity and responsibility, of free expression. This is the soul of our national culture, the foundation of our representative government, the legacy we must nourish and cherish. We are in a battle for the survival of our freedom to practice the best medicine we can; that is obvious.

Some doomsayers think the battle is already lost. It is not. Sometimes the price comes high, and the individual sacrifice can be great. But what truly priceless item was ever obtained or maintained cheaply? Involvement: Your involvement. My involvement. Devoted people: Your devotion. My devotion. Commitment: Your commitment. My commitment.

Thank you for affording me this time, this podium, this First Amendment privilege. And thank you for allowing me to preside this coming year. Aloha.



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NO — Your billing system needs improvement. Improved medical billing practices can reduce your accounts receivable.

YES — The best medical practices consistently have under 2 1/2 months of accounts receivable.

Don't Know — To calculate your accounts receivable ratio, add up all of your accounts receivable on a given date and divide it by your average monthly total charges.

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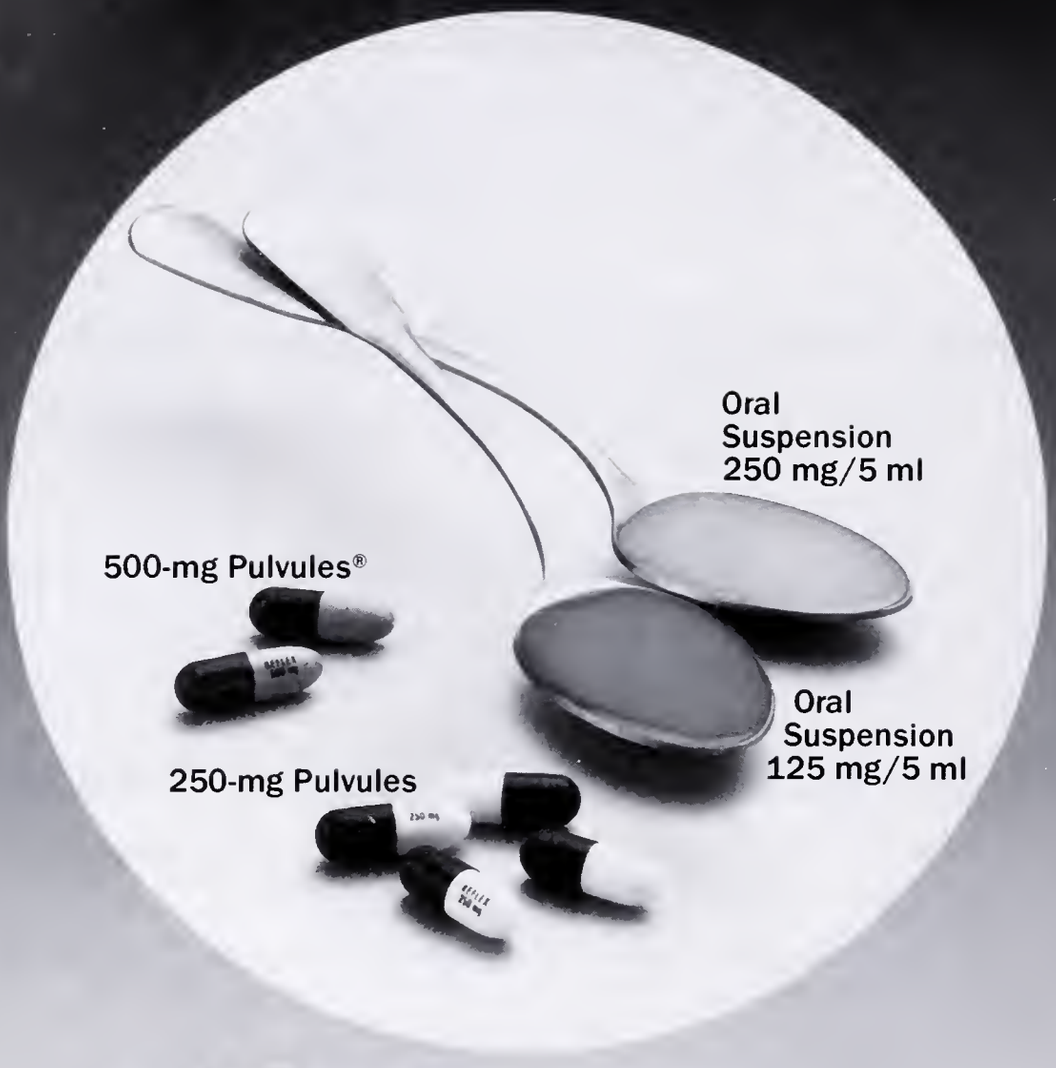

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HMSA Answers Physicians' Questions

The HMA/HMSA Ad Hoc Committee under the chairmanship of Ed Boone, MD, has been submitting questions to HMSA, questions that are frequently posed by practicing physicians.

Readers are invited to comment, and they are also invited to submit additional questions to the committee at the HMA office. We will try to keep the dialogue going via the JOURNAL.

Bernard A.K.S. Ho, senior vice president of HMSA, explains that it is impractical for HMSA's claims examiners to speak directly with physicians because of the volume of claims they process each day — about 23,000 — and also because they do not have immediate access to the claims that require additional information.

Q: Is there a method to achieve better access to HMSA representatives who can dig into a problem rapidly and get meaningful results? It would help immensely if on claims that are returned to the physician for more information, it would be possible to discuss the information needed by phone with the medical claims clerk at HMSA who sent the inquiry.

At this time, one must contact customer service, which refers the problem to Public Relations. As neither department actually processes the claims, the attempt on the part of the physician's office to have its claims processed quickly is often an exercise in futility.

A: Yes. We suggest that physicians call our Customer Service Representatives on Oahu or on the Neighbor Islands with routine questions, such as those about HMSA plan benefits and the status of outstanding claims payments to physicians. Our Customer Service representatives are well-versed on these matters and are trained to research problems and communicate directly with professionals.

HMSA also has a Professional Relations Department staffed with highly skilled representatives who are assigned to specific physicians' offices. It is their job to help physicians resolve recurring claims processing problems, and discuss specific policy matters.

Q: Why can't HMSA provide a direct line for physicians — including a toll-free number for Neighbor Islands — to inquire about claims problems?

A: HMSA does provide direct telephone lines for physicians to make inquiries concerning claims problems and has published these telephone numbers in the HAWAII MEDICAL JOURNAL and HMSA newsletters.

For routine questions, such as those about HMSA plan benefits or status of outstanding claims payments to physicians, please call our Customer Service Representatives:

Oahu:	942-1111
Hilo:	935-5441
Kona:	329-5291
Kauai:	245-3393
Maui:	871-6295

Physicians may also call their Professional Relations Representative or the Professional Relations Department on Oahu at 944-2300.

With regards to including a toll-free number for Neighbor Islands, we are assessing the economics of providing this service.

Q: Please explain how a participating physician can go about having his claim reviewed when he feels that HMSA has made an arbitrary decision regarding his coding, modifiers, or charges for new procedures.

A: HMSA's participating physicians have several avenues of appeal. A participating physician may request, in writing, reevaluation by HMSA's staff of Medical Directors and is entitled to seek formal appeal by both HMSA's Medical Claims Review and Benefits Administration Committees. If a participating physician is still dissatisfied, he/she may request binding arbitration. The appeals procedures are stipulated in the HMSA Participating Physician Agreement.

Over The Editor's Desk

(Continued from page 13)

sociated with AIDS, a disorder that seriously impairs or destroys the body's ability to fight disease.

"This Western Blot test kit is another product in a range of HTLV-III-related products and services developed by Biotech to help reduce the spread of this disease, for which there is to date no known cure," Li said. In November, Biotech developed a quick "dip stick" test to detect antibodies specific to HTLV-III. This item will be marketed overseas shortly.

"In addition, Biotech operates a clinical reference laboratory to provide HTLV-III Western Blot confirmatory test services. Our HTLV-III ELISA test kit is being marketing on a worldwide exclusive basis by Du Pont."

Biotech Research is a leader in the development and production of viral diagnostic products and monoclonal antibodies.

For further information, contact Dr. Robert Ting, Biotech Research Laboratories, Inc., at (301) 251-0800.

The White House Conference on Small Business — Small Business Joins Debate Over Federal Deficit — WASHINGTON, D.C., As President Reagan and the Congress grapple with the problem of the Federal deficit, small-business people attending White House Conference on Small Business meetings across the country remained steadfast in their conviction that the federal government should live within its means.

"Small business is painfully aware of the need to make ends meet — to spend only what it takes in. It's a budgetary task these people deal with each and every day," said Jack L. Courtemanche, executive director of the White House Conference on Small Business, in commenting on the budget recommendations put forth at the first 18 state conferences.

"There is strong support for a constitutional amendment requiring a balanced budget and/or restricted spending," said Courtemanche. "Small-business people around the nation are also adamant in recommending the president be given line-item veto authority over the budget."

Chest Pain and Hypertension Following Myelography

(Continued from page 17)

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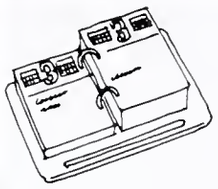


Continuing Medical Education

CALENDAR OF ACCREDITED EVENTS—CATEGORY 1

Accredited Programs of CME allow one unit of AMA credit for each hour of instruction excluding all "breaks." Some programs also are accredited for AAFP prescribed credit.

LOCAL ACCREDITED PROGRAMS

ONGOING

For a complete list of ongoing programs, please refer to the September 1985 issue of the HAWAII MEDICAL JOURNAL. Further information is available through the individual institutions or through the HMA's CME Department.

SPECIAL EVENTS

All special events should be confirmed with the CME program sponsors, as cancellations are not necessarily reported to the HAWAII MEDICAL JOURNAL.

Jan. 13-17, 1986	Pan Pacific Surgical Association, Charlotte Winget, P.O. Box 553, Honolulu 96809, (808) 523-8978. Location: Sheraton-Waikiki Hotel.
Jan. 23, 24, 1986	Soft Tissue Surgery Workshop, Tripler Army Medical Center and the American Academy of Facial Plastic and Reconstructive Surgery, Larry Zieske, MD, Department of Surgery, Tripler Army Medical Center, Honolulu 96859, (808) 433-5334. Location: Tripler Army Medical Center.
Feb. 4-7, 1986	Cardiology Update, Institute for Medical Studies, 30131 Town Center Dr., Suite 215, Laguna Niguel, Calif. 92677, (714) 495-4499. Location: Honolulu.
Feb. 5, 1986	Human Values and Family Health Care, March of Dimes, Janet Huff, RN, 600 Kapiolani Blvd., Honolulu 96813, (808) 536-1045. Location: Hale Koa Hotel.
Feb. 7, 1986	Genetic Decisions: Problems and Promises, March of Dimes and DOH/MCH Branch, Janet Huff, RN, 600 Kapiolani Blvd., Honolulu 96813, (808) 536-1045. Location: Hale Koa Hotel.
Feb. 17-21, 1986	Geriatric Medicine In Practice — 1986: Workshops with Experts, co-sponsored by Kuakini Geriatric Center, Pacific Geriatric Education Center. Location: Hawaiian Regent Hotel.
March 2, 1986	Lederle Symposium: The Impaired Health Care Professional, Lederle Laboratories and Hawaii Medical Association, 320 Ward Ave., Suite 200, Honolulu 96814, (808) 536-7702. Location: The Westin Ilikai.

A Surgeon's Prayer

By Robert S. Flowers, MD

I stand in awe of who you are
Creator, teacher and morning star.
As sculptor of the galaxy
Why would you bother to look on me?

For who am I but a piece of clay
That you lifted and formed in your usual way;
Then breathed in life and set me free
To explore the earth and sail the sea.

Then you gave to a few a special art
You strengthened our hands, and touched our heart,
And gave us a bit of who you are
Though we sometimes lose vision from straying too far.

And what is that gift of which I write?
It's the power to create, to restore lost sight.
To complete that unfinished at the time of birth.
Continued creation right here on earth.

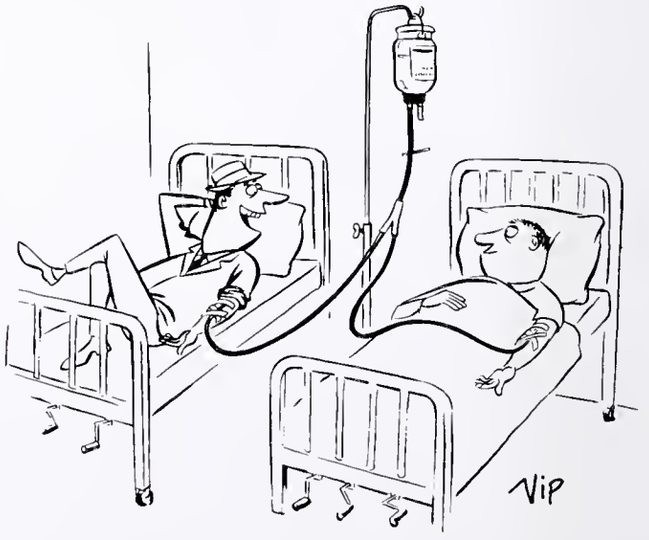
It's restoring one's form that's been crushed in a crash
Or replacing some skin that's turned into ash
Or remaking what's lost to a cancerous growth,
All far in excess of Hippocrates' oath.

It's altering a nose that holds back a face,
Or rearranging the jaws as might be the case,
Or brightening one's eyes, or tightening their skin,
Or giving a breast, or strengthening a chin.

And for some simple reason that escapes me just now
In your infinite wisdom you elected to allow
Imperfection in creation. Perhaps it was so
Restoration and healing, your people could know.

☆ ☆ ☆

That part of your power you gave to these hands
Is an awesome endowment with awesome demands.
So I ask that you keep me both humble and clear
That it's your gift and your art that made my career.



"THANKS, ED. NICE OF YOU TO INVITE ME TO DINNER."

The Johns Hopkins
Medical Institutions

Kuakini
Medical Center

ADVANCES AND ISSUES IN ACUTE MEDICINE

A Symposium for Emergency Medicine and Acute Care Specialists

February 27-28, 1986
Hawaiian Regent Hotel
Honolulu, Hawaii

Presented by The Johns Hopkins University School of Medicine
Division of Emergency Medicine and Trauma, Department of Surgery
and
Kuakini Medical Center

SYMPOSIUM PROGRAM

Thursday, February 27, 1986

- Emergency Cardiac Pacing Techniques
- Changes in CPR Protocol
- Reimbursement Issues in Emergency Medicine
- Management of PCP Intoxication
- The Alcohol Withdrawal Syndrome

Friday, February 28, 1986

- Pediatric Resuscitation
- Evaluation of Child Abuse
- AIDS in the Emergency Department
- Cervical Spine Trauma
- The Shock-Trauma Approach to Initial Management of the Multiple Trauma Patient
- Thoracic Trauma

Featuring distinguished faculty from The Johns Hopkins Medical Institutions, Maryland Institute for Emergency Medical Services System (MIEMSS), and Ohio State University

REGISTRATION INFORMATION:

To register, call Kuakini Medical Center's Department of Education and Training at (808) 547-9252. Registration fees are $250.00 for physicians and $125.00 for residents. Registration will be accepted on a space-available basis.

CONTINUING EDUCATION CREDITS:

This symposium is approved for Category I credits by the Hawaii Medical Association and the American College of Emergency Physicians.

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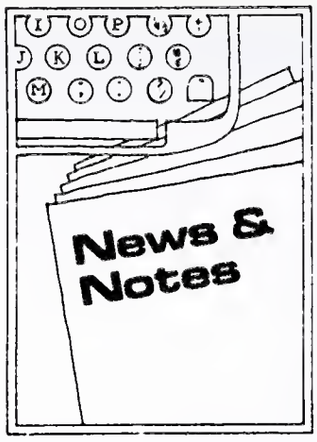

Henry Yokoyama, MD

Miscellany

Fitzpatrick, who had emigrated to America, returned to Ireland after 40 years. He looked up his old buddy O'Toole at the local pub and reminisced, "What happened to McGinty who worked at the brewery?" O'Toole: "He fell into a huge vat of beer and drowned." Fitzpatrick: "Poor fellow . . . may he rest in peace." O'Toole: "Bless his soul . . . he even climbed out three times to urinate. . . ." (As told by Frank Rogers)

How do you identify a Chinese man at a Ronald McDonald nudist colony? He's the one with sesame seeds on his buns. (Anonymous Chinese physician.)

Oncology Conference

We caught the tail end of the lecture by **Abe Nomura** of the Japan-Hawaii Cancer Study on "Causes of Stomach Cancer." He mentioned that vitamins C and E are antioxidants, which prevent nitrosamine formation from nitrates and nitrites. . . . Moderator **Glenn Kokame** queried: "What are the daily recommended doses for vitamins C and E?" Nomura replied: "Processed foods, dried and salted fish, smoked and pickled foods. . . ." Kokame added his favorite food: "And vienna sausage? How about coffee?" Nomura gladdened our hearts: "Coffee is not implicated. Even the reports about bladder and pancreatic cancer have not held up." Kokame: "How about post-gastrectomy patients and gastric CA?" Nomura: "The incidence is higher in gastrectomy patients, especially with Bilroth II . . . A twofold higher risk 20 to 25 years later."

A Voice in the Wilderness . . .

We are sorely beset by prophets of gloom who predict that with the rising malpractice premiums, the physician surplus, the ceiling on fees, the DRGs, cost containment, etc., we will be forced to join HMOs or PPOs, and that the individual practitioner of medicine is on the way out. . . . Along came Frank Rogers, general surgeon and chairman of the California Delegation to the AMA, who spoke to a capacity crowd at the Mabel Smyth Auditorium Nov. 12. He spoke sans slides and sans his prepared talk (which he had misplaced on the plane).

His lecture — with an unimpressive title: "Contract Medical Care, or PPO Unmasked" — struck home. Rogers was Charlton Heston in the actor's role of Moses leading his flock across the Nile with the pharaoh's men close behind.

Herein are our fragmentary notes taken on this auspicious occasion:

"Prepaid health plans were started in California where all dumb ideas start. . . . The experience in California with HMO (fixed-fee, contract medical care) is a net failure. . . . The traditional fee-for-service is definitely superior in terms of quality of care and cost-containment. . . . The medical profession is under siege. . . . But remember, only you doctors can deliver medical care. . . . No one else.

"There are at least 280 separate allied disciplines, but only you as physicians can deliver medical care. . . . You are the key. . . . You are waiving your rights whenever you sign a contract with an HMO or a PPO. . . . Remember, the private practice of medicine is under attack. . . . The HMO is an old idea with a new name. . . . It makes assembly-line physicians of you and discourages and eliminates innovation.

"The prepaid health plans have been failures starting with Mr. Lewis (referring to John L. Lewis, now deceased, of the United Mine Workers of America). . . . The reason for the failures is that the plans are abused and overutilized. . . . The PPO is simply another fixed-fee scheme.

"There are 17 pitfalls and problems to be considered. . . . Blue Shield and Blue Cross have a ceiling on the system: Set fees and payment in full for services rendered. . . . They survive in California only because doctors in California bill for the remainder or difference. . . .

"The HMOs predicted lower morbidity, early ambulation, and higher health standards. . . . One year later they had to double their premium charges, then collapsed because they included only 1.7% of the elderly. . . . Yet the national average of elderly patients is 9%.

"The Rand Corporation summarized its findings as follows: 'Private office practice should form the core. . . . It is less expensive and provides better continuity of care.'

"The various California plans write a history of failures. . . . In some plans, 96% of the cost went into administration. Our Kaiser Plan means long waits, hurried physician care, and difficulty making appointments . . . 44% of Kaiser patients go to outside physicians

for surgery in California.

"The bottom line spells failure of group prepaid plans. . . . Private practice is cheaper. . . . Concludes the Rand Corporation: 'Fee for service is preferred and convenient.'. . .

"The federally funded HMOs of 1981-82 will fail in four years. . . . The fixed-fee plans are still liable to antitrust suit under the Sherman Act. . . . They have extraordinary expenses in advertising, lawyer fees, and administrative costs.

"The strongest advocates of fixed-fee medical service want to control you. . . . If everyone joined PPOs, will there be more patients? Absolutely not! Even with the surplus of doctors. . . . Our common enemy is the federal government. . . . First came Medicare in 1966. . . . The cost — billions of dollars. . . . Started with $3 billion and next year will be $85 billion. . . . Money goes into bureaucracy — it hires a million employees. . . .

"We have to get free enterprise back into medical care. . . . Private insurance can do the job. . . .

"What is the solution? Private physicians must band together for free choice of medicine. . . . Do not enter into contract with the government. . . . You are the bait . . . the lure for entrepreneurs. . . . We should also stand up for the hospital-based radiologists and pathologists. . . .

"Every single third-party system jeopardizes the patient/doctor system. . . . Stand fast! Do not parade into fixed-fee systems. . . . We physicians are the beacon of freedom for the rest of the world!

"Medicine is really doctors taking care of people on a one-to-one basis. Doctors are the ones who take care of people, not health plans. . . . The people are the same. . . . And, seeking second opinions is idiotic. . . .

"With PPOs, the cost will go up and the quality of medicine will go down. . . . If doctors did not join, then PPOs would not work. . . . It is the old divide and conquer strategy. . . . How do we fight it? Unify and do it now. . . . It is the question of socialism, collectivism vs. free choice and free enterprise. . . ."

(Ed./Our apologies to Frank Rogers for our incomplete notes.)

CONTRACTING AND PREFERRED PROVIDER ORGANIZATIONS

By Frank A. Rogers, MD

(This information is provided as a means of bringing information on socio-economic issues to physicians and is not a statement of policy by HMA on contract medical care.)

Preferred Provider Organizations are models of closed-panel, fixed-free, group medicine. All plans involve a middleman

broker. Doctors who contract to provide medical care with these organizations waive virtually all rights to independent decisions and must understand that the contract is a binding agreement. Fixed-fee, closed-panel schemes have almost universally failed to save money or attract patients. Bankruptcy has been the usual result.

Pitfalls and problems to be considered:

(1) The doctor who joins a PPO signs a contract which binds him into treating anyone and everyone assigned to the PPO. A physician must continue to treat patients even after he resigns until some change of responsibility is made.

(2) Physicians in PPOs must refer only to fellow PPO contractors and admit only to hospitals who have contracted with a PPO. If a physician refers to a non-member or admits a patient to a non-member hospital, that physician is in breach of contract and can be liable for all costs.

(3) Professional liability coverage may not cover doctors in fixed-fee contract medical care schemes. The doctor may be liable for enormous sums should suits be brought in against the PPO or other members of the PPO for problems arising out of decisions made by PPO claims reviewers.

(4) "Hold harmless" under all PPO contracts means that one party assumes all of the liability integral to the contract association. That contractual liability invariably rests upon the doctor, not the PPO organizers. The doctor is bound by the decisions of the utilization review committee hired by the PPO.

(5) Contracts *do not* guarantee rapid payment of fees in spite of claims made by PPO organizers.

(6) Termination clauses make it easy to get in the PPO and difficult to get out. The "window of opportunity" (to dissolve) may be narrow and brief. If missed, the physician may not be able to resign for 1 year.

(7) Arbitration of disagreements may also be mandated by contract. Arbitration is not necessarily a money-saving mechanism since arbitrators charge $300 to $500 per day, three arbitrators are required and each may take 4 to 5 days to hear, review, decide and report. PPOS may well decide to withhold payments knowing that physicians will not spend $5000 to collect $500. The physician cannot go to court until contract requirements for arbitration have been fulfilled.

(8) In a PPO or any other contract medical practice, the "fees" or payments are the same to all. And fees are set by the governing board or the PSRO it hires. There is no reward for quality.

(9) There is a clear and present risk of being sued not only by the Federal Government, but by outside doctors and disgruntled patients. In civil suits, costs of court can be enormous and damages, if awarded, are tripled.

(10) Although PPO (and IPA) promoters say that in *these* contract models "there is no shared financial risk since there is no set prepayment or capitation fund to be protected," there is a major risk. Every insurance company or business has a premium or budget for health care cost. *There is a risk* and it is the doctors who have the *liability*.

(11) Every group managing or attempting to organize a PPO includes built-in plans to withhold money from fees earned by the doctors — generally 20% — and will fix the fees by computer. Fixed fees are the fundamental basis for antitrust action.

(12) Every contract includes the absolute ingredients of PSRO — Pre-admission certification, concurrent review by hired nurses or doctors, claims review, disallowance for some procedures and denial of payment where your peers decide not to pay. PRO is mandatory.

(13) Only the brokers or middleman board members who plan and control the system make money. Their "management fees and legal fees come first."

(14) The most condemning fact about the PPO or contract medicine movement is that it is totally unneeded.

(15) Only physicians can practice medicine and without their total acquiescence not one PPO would be formed.

(16) There is no guarantee that any doctor contracting will receive more patients.

(17) There will be a virtual guarantee that discrimination will occur by manipulation of the referral system and the payments. This leads to the historic failure of fixed-fee contract medical care almost as much as the lack of freedom of choice to both the patients and physicians.

Ethical physicians should avoid fixed-fee schemes which destroy the doctor/patient relationship. Any scheme or planned model for health care that intervenes or weakens the doctor/patient relationship increases the liability risk. The firmer the doctor/patient relationship, the smaller the risk of dissension and litigation. A fixed fee is the hallmark of socialized medicine!

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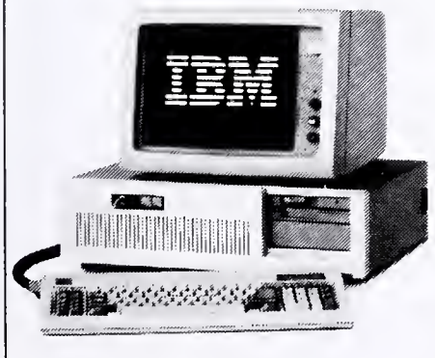

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Hawaii Medical Journal

CONTENTS

Strong on results

before Otoscopic view of tympanic membrane in a patient who did not respond to ampicillin

after Same patient after ten days of Bactrim (trimethoprim and sulfamethoxazole/Roche) therapy

Simple to take.

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- **Results in a reduction of fever, pain and other symptoms[2,3]**

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References: 1. Klimek JJ *et al. J Pediatr 96*:1087-1089, Jun 1980. 2. Schwartz RH *et al: Rev Infect Dis 4*:514-516, Mar-Apr 1982. 3. Cooper J, Inman JS, Dawson AF: *Practitioner 217*:804-809, Nov 1976. 4. Antibiotic Sensitivity Report, Winter 1983. BAC-DATA Medical Information Systems, Inc. 5. Data on file, Hoffmann-La Roche Inc., Nutley, NJ 6. Wormser GP, Keusch GT, Heel RC: *Drugs 24*:459-518, Dec 1982. 7. *Med Lett Drugs Ther 23*:93-95, Oct 30, 1981.

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Editorials

Modern Hawaiians and Health

By Kekuni Blaisdell, MD

Our esteemed professor of medicine at the University of Hawaii's John A. Burns School of Medcine, Richard Kekuni Blaisdell, MD, writes periodically for He Mau Ninau Ola, the publication put out by the Office of Hawaiian Affairs. In the Kepakemapa (September) 1985 issue, Blaisdell philosophizes on why modern native Hawaiians are "not as robust" as their forebears. He does this with facile intermixiing of the Hawaiian and English languages, which makes this article in He Mau Ninau Ola unique. He has allowed us to separate it into English only. Readers who want very much to peruse the original version may do so at the JOURNAL's office./Ed.

☆ ☆ ☆

Q. E kauka, you make it seem too simple. To solve our health problems, all we Hawaiians need to do is be culturally happy and get the government to support us. But how does this improve our health statistics?

A. I apologize for misleading you. Our health problems are complex, not simple. Our major health problems vary from heart disease, cancer, stroke, and high blood pressure to accidents, diabetes, kidney failure and suicide. Other races have similar health problems, but we Hawaiians have the highest overall rates for these diseases.

Causal factors also are complex, multiple, interact, and in some instances are not completely identified. In 1979, a group of Mainland experts estimated the relative roles of the four main causal and risk factors of ill health in America to be as follows:

Causal factors	**Relative Role**
1. Unwholesome lifestyle, e.g., high-fat, high-sugar, and high-sodium foods; self-abuse with cigarette smoking, alcohol and drugs; physical inactivity; and stress—	50%.
2. Environmental hazards, e.g., harmful chemicals, accidents, unsanitary conditions, homelessness, family disruption, aborted schooling, unemployment, advertising propaganda, and crime—	20%.
3. Human biological factors, e.g., heredity; obscure cellular and biochemical mechanisms—	20%.
4. Inadequate health care, e.g, lack of health professionals, hospitals, medications, immunization, early detection—	10%.

Which of these causal or risk factors apply especially to us modern Hawaiians, and why are we so vulnerable when our ancestors, the pre-haole Hawaiians, were so robust?

Answers to these questions are certainly complex, not simple, and we welcome your thinking. The Hawaiian Health Historical and Cultural Task Force of E Ola Mau, a parent health needs study group, is now considering the following hypotheses:

- Since the fatal impact of the first foreigners in 1778 and the rapid depopulation of our early Hawaiians by introduced infections and customs, we have almost completely lost our native culture and language. Our elected, constitutional government was overthrown by the landing of U.S. armed forces. Our lands have been, and continue to be, taken. We are no longer self-sufficient, living off the land and sea, but rather pawns dependent on and controlled by multinational overseas business conglomerates.
- The majority of us Hawaiians have failed to adapt to the dominant haole competitive economic, social, political and educational culture, which promotes commercial exploitation, pollution and destruction of our fragile environment, showy consumption and waste and which continues to demean our indigenous culture and is insensitive to our people's needs.
- Yet too many of us Hawaiians have eagerly embraced some harmful, haole lifestyle ways, such as faulty nutrition, cigarette smoking and alcohol.

This unwholesome health assessment is only one dimension of a conquered and dispirited people who, in our own native land, are mere remnants of a once proud and thriving oceanic race.

Tentative recommendations to correct this plight include:

1. Input of Hawaiians in all aspects of planning and implementation.
2. Fostering of na mea pono (Hawaiian moral values and practices) beginning with our goals. These goals are defined in our traditional holistic terms of pursuit of meaningful lives through unified, harmonious interaction of spirit with body, intellect, emotions, family, family guardians, and world, nature and environment rather than merely improved health statistics.
3. Support of government, schools, industry, labor and communications media in the return, and preservation, of productive Hawaiian lands, self-determination, self-sufficiency, health education within the family, training of culturally sensitive Hawaiian health professionals, and culture-awareness training of non-Hawaiians.

Details of these and other complex proposals will be presented in future columns. Meanwhile, e ha'awi mai nei i ninau ola, ke'olu'olu.

Are You Healthy? Part II

"Every physician's office is a cancer detection center," the American Cancer Society will emphatically agree.

Probably because of the pressures generated in the waiting room, a lot of physicians don't have the time to follow that dictum. This applies to the generalist, the family physician, the internist and the pediatrician — the so-called "primary care" physicians.

However, even the specialists can and should be cognizant of the importance of a "whole person" periodic evaluation, even though he might presume that the referring physician took care of that and merely wants special attention to a special part of the patient's anatomy. If a specialist, on the other hand, does find himself in the position of being the primary physician to a patient, who is usually self-referred, it behooves him, in serious cases, to refer that patient to a PMD (his or her private or "primary" medical doctor) for that comprehensive medical evaluation. Some of the best surgeons, for example, indeed do that — much to their credit.

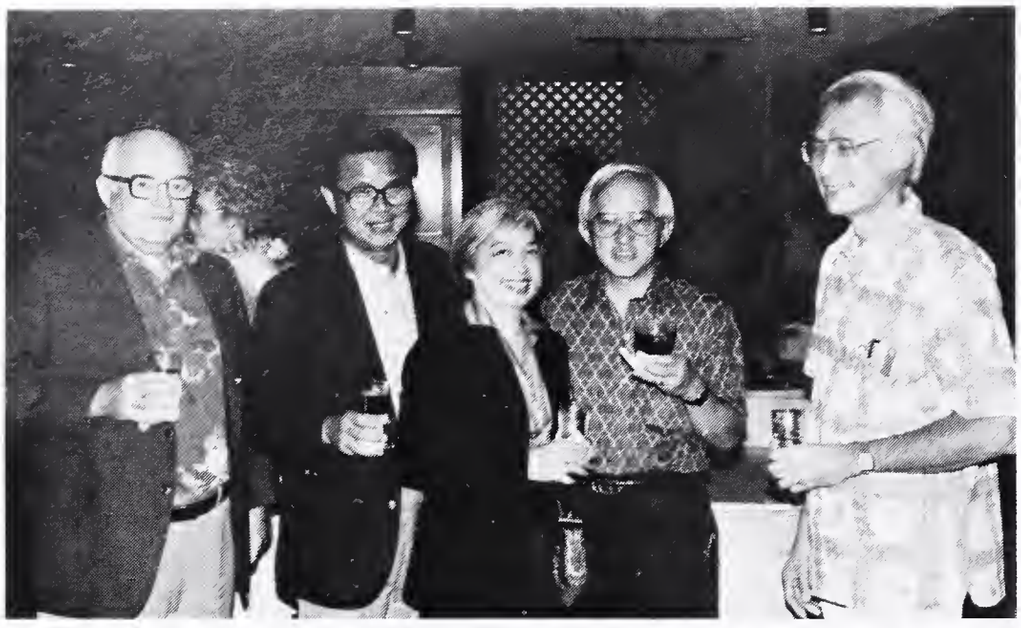
All too often, it seems a surgeon or gynecologist will ask for a quick cardiac check prior to contemplated surgery. We get by with that, but it isn't the best we can do. How much better would it not be to have the PMD write up the complete H & PE! It would quiet the "second opinion" furor, for one thing.

Another aspect to the evaluation of the whole person is exemplified by the case of a walk-in patient with skin cancer, the excision of which, for one reason or another, might entail a major procedure. How does it reflect on our profession when a big deal is made of this in a 90-year-old man who is dying of gastric cancer? His family, much less he himself, might never have mentioned the underlying agonal occurrence!

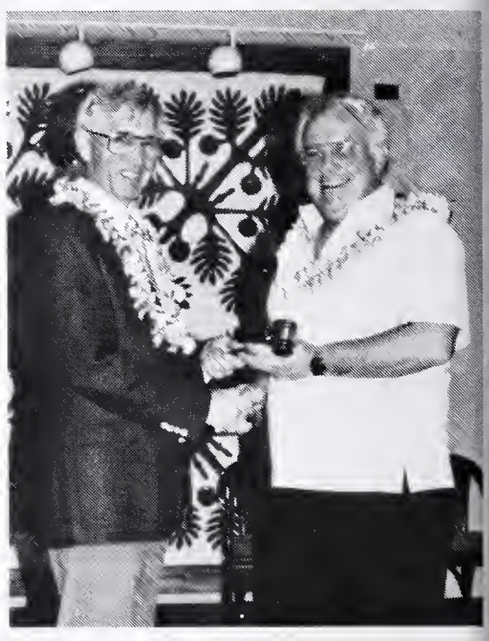
And, what of the patient who comes in faithfully, periodically for a monitoring of hypertension or diabetes? The chart grows in thickness; the years go by; the patient is not asked and does not volunteer symptoms that she thinks are irrelevant to the blood pressure? Or, what if symptoms have not appeared as yet? Suddenly, one looks back in the chart: The last complete H & PE was recorded five long years ago. Lo and behold! This woman has a fungating cervical cancer long past the curative stage!

Repeat: Every doctor's office should be a cancer detection center.

J.I. Frederick Reppun, MD
Editor



Enjoying cocktails before dinner are, from left, Robert Corn, Calvin Sia, MD, Alma Corn, MD, Henry Yim, MD, and Calvin Kam, MD.



HMA President Russell T. Stodd, MD, left, congratulates incoming HCMS President Philip McNamee, MD.

HCMS Annual Christmas Party and Installation of Officers

Oahu Country Club Christmas buffet featured all kinds of delectables including prime rib, roast turkey and mahimahi.

From left, James Lumeng, MD, HCMS Program Committee Chairman; Russell T. Stodd, MD, HMA President; and new officers of Honolulu County Medical Society: President-elect John McDonnell, MD; Treasurer Hing Hua Chun, MD; Secretary Ronald Peroff, MD; Immediate Past President Allan R. Kunimoto, MD; and President Philip McNamee, MD.

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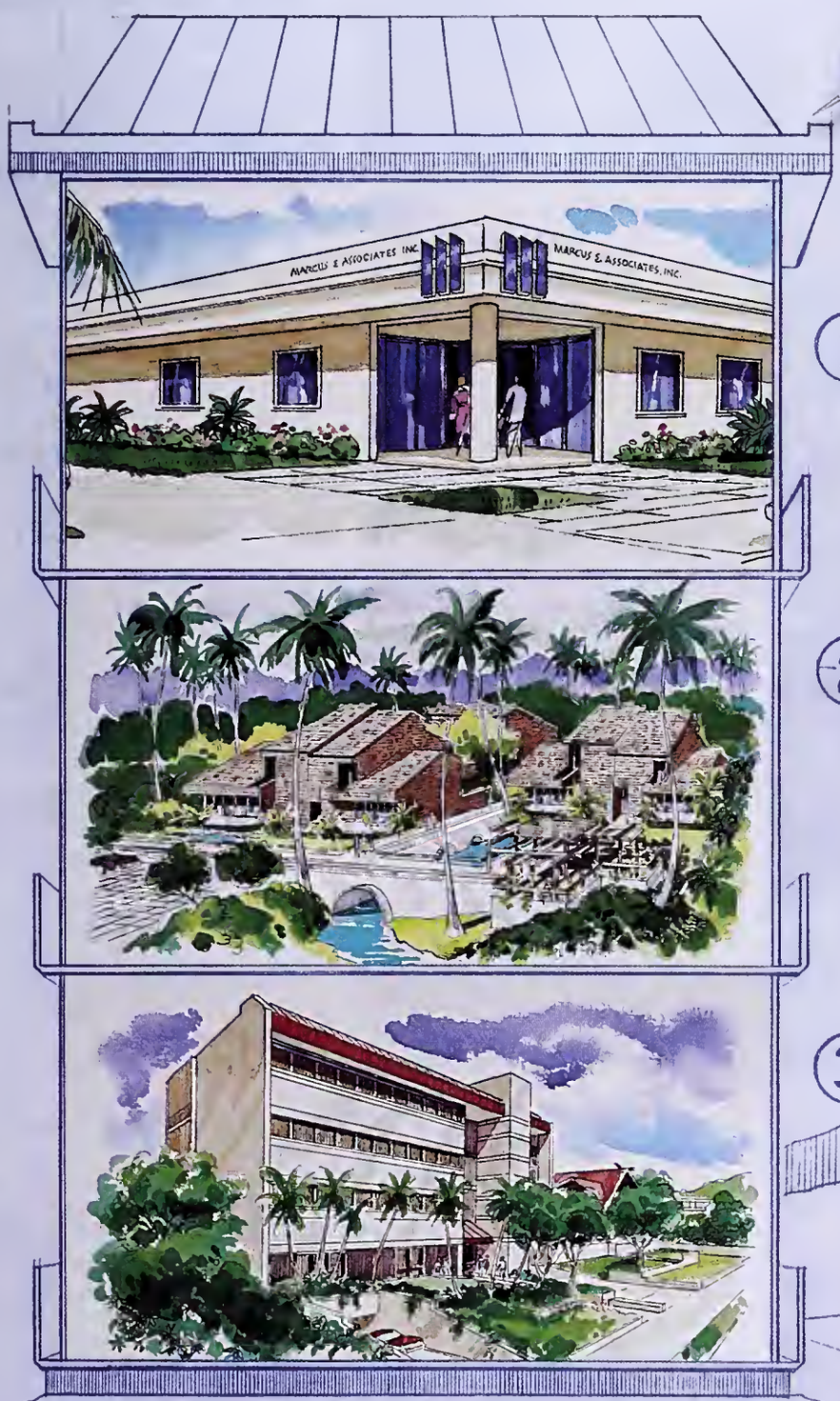

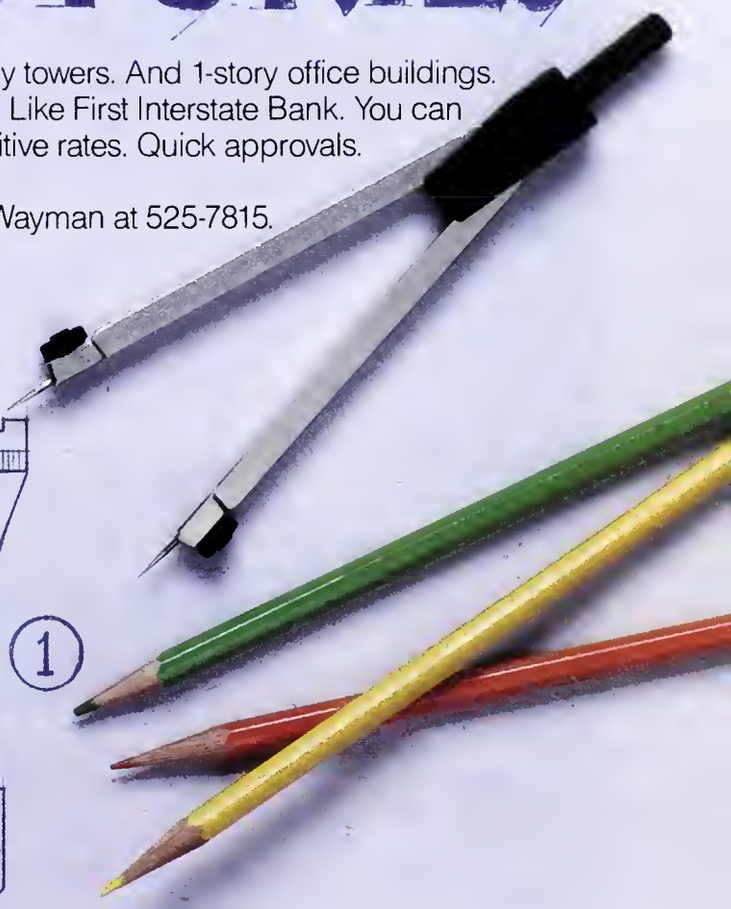

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Beyond the call

The Patterns of Herpesvirus Infection in a Multiracial Population

Kauai County, Hawaii, 1981-1985

Susan Brinkworth*
David J. Elpern, MD**

Herpesvirus infections are commonly seen by physicians of all disciplines. These disorders are of considerable interest because genital herpes is perceived to be a significant problem for the young, sexually active population.

Previous studies of genital herpes that included ethnicity did show a Caucasian predilection, but this fact has not been stressed.[1, 2] Over the past few years, we have noticed that herpes simplex infections are more commonly encountered in Caucasians than in the other racial groups represented in Hawaii.

Herein, we report an epidemiological study of herpesvirus infections seen over 51 months in a dermatologic practice on Kauai, Hawaii.

Materials and Methods

Since March of 1981 the cutaneous diagnoses of all patients seen in the senior author's (DJE) dermatology practice on Kauai, Hawaii, have been entered in a registry. Demographic material is collected on each patient as previously described.[3]

Kauai County is the most northern and western of the major Hawaiian Islands and includes the Islands of Kauai and Niihau. The 1980 U.S. Census lists the resident population as 39,082. Table 1 gives the racial breakdown.

This practice provides the only specialized dermatologic care on Kauai; presumably, it includes a representative sampling of the island's population. The reader should understand that most herpetic opthalmologic infections were seen in the eye clinic and that a large number of females with genital herpes simplex (HSV-G) infections were seen in the obstetrics-gynecology clinic, rather than in the authors' office.

All diagnoses coded as HSV-genital (HSV-G), HSV-oral (HSV-O), HSV-other than oral or genital (HSV-Other) and herpes zoster (HZ), were studied. Patients with varicella were specifically excluded because the dermatology practice does not see a representative sampling. (Tourists were specifically excluded.)

Diagnoses of herpes simplex or herpes zoster are, for the most part, made clinically; however, Tzanck smears and viral cultures were frequently utilized in the practice. No patients were given definitive diagnoses on the basis of equivocal findings. Liberal use was made of terms such as Dermatitis Not Otherwise Specified, and Genital Ulcer Not Otherwise Specified to avoid inaccuracies in the database.

Patients were classified as Caucasian, Filipino, Japanese, Hawaiian or part-Hawaiian and Other. The latter group included those whose ethnic background was not one of the previous four, but were patients of mixed descent, i.e. Japanese-Caucasian, Japanese-Filipino, etc. Persons of Spanish/Portuguese ancestry were included in the Caucasian category.

Results

During a 51-month period beginning March 1, 1981, 441 Kauai residents were diagnosed as having herpesvirus infection. (See Table 2.)

Table 3 depicts the number of herpes simplex and herpes zoster infections encountered in the various ethnic groups. A marked prevalence among Caucasians is noted for HSV infections, approximately 15 times greater than what was seen in the other ethnic groups for HSV-G, six times for HSV-O, and eight times for HSV-Total. This difference was not observed in the cases of herpes zoster.

The greatest number of HSV infections diagnosed were in patients aged 15 to 44 years. (See Table 4.) This age group represents 92.6% of the cases for HSV-G, 70.9% for HSV-O and 89.6% for HSV-

TABLE 1.
Kauai Population
U.S. Census, 1980

Race	Number	% of Total
Caucasian	11,147	28.5
Filipino	10,237	26.2
Japanese	9,775	25.0
Hawaiian and part-Hawaiian	5,704	14.6
Other	2,219	5.7

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Address correspondence to David J. Elpern, MD, at above address.

Total. A detailed analysis of 91 of the 108 patients with HSV-G demonstrated the site of involvement to be the buttocks in 30% of the cases. The remaining 17 patients with HSV-G were not included in this analysis, as the exact site of infection was not recorded. Eighty-five percent of the patients with herpes of the buttocks were female.

Figure 1 depicts the site of involvement of HSV-Other.

HZ is fairly uniformly distributed among all the age groups, except that the incidence is low from years 0 to 14 and years 75 and over. (See Table 4.) The trigeminal nerve, the single most common nerve involved, was affected in 18% of the HZ patients. Table 5 depicts the site of involvement by dermatome.

Discussion

An epidemiological study may have important implications for the diagnosis and prevention of disease. It may also be of particular importance for such socially transmitted diseases as herpes simplex. This study of the number of herpesvirus infections on Kauai raises some important questions, not all of which are answerable at this time.

In Kauai's island population, ethnic differences in the number of cases were observed for herpesvirus infections other than herpes zoster. Caucasians presented the most cases of HSV-G, HSV-O, and HSV-Other; herpes zoster was relatively equally distributed among Kauai's ethnic groups.

HSV infection is contracted by people of all ages all over the world as evidenced by serological testing.[4, 5] Examining sera of the different ethnic groups on Kauai would provide a means of determining whether some races are more commonly infected with HSV than others.

The predominance of herpes simplex infection among Caucasians on Kauai could be due to sociological, genetic or other factors. A more detailed, as yet unpublished, study (DJE) of some of these patients, three-quarters of whom are Caucasian, shows that approximately half contracted HSV-O and HSV-Other outside the state of Hawaii, while just under a third contracted HSV-G outside Hawaii.

Age may represent another factor. Herpes simplex infections were most commonly seen in patients aged 15-44 years. Fifty-three percent of the Caucasian population of Kauai is within this age range; corresponding values for the other races are much lower.[6]

The effects of ultraviolet radiation on the immune system may partially explain the high number of HSV cases seen in Caucasians. Both long and short ultraviolet light severely impairs immune recognition of certain antigens.[7] Individuals concurrently exposed to ultraviolet radiation and herpes simplex in-

TABLE 2.
Number of Herpesvirus Infections
March 1981 to May 1985

	Male	Female	Total
HSV-Total	113	157	270
HSV-Genital	60	48	108
HSV-Oral	40	87	127
HSV-Other	13	22	35
HZ	89	82	171

TABLE 3.
Ethnic Distribution of Herpesvirus Infections
March 1981 to May 1985

Ethnicity	HSV-Total O/E*	HSV-G O/E	HSV-O O/E	HZ O/E
Caucasian	177/77	85/31	74/36	51/49
Filipino	15/71	5/28	7/33	39/45
Hawaiian and part-Hawaiian	26/39	3/16	19/19	15/25
Japanese	20/67	5/27	12/32	49/43
Other	32/15	10/6	15/7	17/10

*Observed/Expected.

TABLE 4.
Age Distribution of Herpes Infection
March 1981 to May 1985

Age	HSV-Total	HSV-G	HSV-O	HZ
0-14	22	2	14	8
15-29	124	56	51	42
30-44	91	44	39	37
45-59	17	4	12	23
60-74	13	2	9	47
75+	3	0	2	14

TABLE 5.
HZ Infection by Dermatome
March 1981 to May 1985

Site	Number	% of Total
Cranial	31	18
Cervical	31	18
Thoracic	74	44
Lumbar	24	14
Sacral	10	6

fection may be more susceptible to the latter. Ultraviolet light may also have a systemic effect on viral latency.[7] Caucasians, who possess less melanin than the other ethnic groups, may be more susceptible to both the local and systemic effects of ultraviolet light, predisposing them to HSV infection *and* recurrence. In particular, this effect would account for the increase in the number of Caucasians who developed recurrent disease, as compared with the lower incidence in the more heavily pigmented racial groups. This hypothesis should be easy to investigate by serological testing.

Previous studies which specifically discuss HSV-Other could not be located, yet 13% of our patients presented with infection at a site other than oral or genital. Sites of involvement included the extremities as well as the trunk. These results should serve as a reminder that herpes simplex can occur on virtually any part of the body, but is usually found in sites commonly traumatized and exposed to infected contacts.

The racial distribution of herpes zoster cannot be segregated in the same manner as in the cases of HSV infection. The data is similar to an earlier study which found no sexual, social or racial predilection for herpes zoster.[8] Since herpes zoster and HSV infection are caused by related viruses, one interpretation is that HSV patients are not as likely to see a physician as are herpes zoster patients. Alternatively, Caucasians may be more susceptible to HSV infection, *or* recurrence of HSV, whereas all groups have equal exposure to HZ infection.

In addition, the present study found the number of herpes zoster infections among younger age groups to be much higher than previously reported.[8, 9] Although herpes zoster has been associated with advancing age,[10] the number of cases did not increase as markedly after the third decade as earlier studies had noted.[9] Our study also found the number of cases among younger age groups to be as high as or higher than among some of the older age groups. two possible conclusions can be drawn: (a) These results may represent an artifact; or (b) previous study samples have been skewed for some reason.

In conclusion, HSV infections other than HZ are more commonly encountered among Caucasians than among other racial groups on Kauai. This may relate to infection, but it is also possible that the Caucasian predilection may be related to an increased frequency of recurrent disease in this group. The role of ultraviolet light as a local or systemic immunosuppressive agent on the skin could possibly explain this. Serological testing of persons of different age and racial groups on Kauai for antibodies to HSV-I and HSV-II would help to clarify this problem. It is fascinating and significant that HZ does not follow the same pattern. This tends to lend more credence to the ethnic differences noted for HSV infections, and to detract from the possibility that our findings represent artifacts such as peculiarities of the cohort that was studied.

ACKNOWLEDGMENT

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Hawaii Academy of Family Physicians' Newsletter

Marlies Farrell

Membership News

There are no new members this month. Glen Stahl was re-elected to Active membership after completing 150 hours of approved CME. April Sasaki was re-elected to Affiliate membership for 1986. Ken Steinweg was recently promoted to Lieutenant Colonel; he is chief of the Family Practice Department at Tripler as well as the director of the Family Practice Residency Program there. Congratulations to all!

Special congratulations must go to Les Vasconcellos, who celebrated his 70th birthday in a very meaningful way. His wife, Madalin, and their children arranged a truly different surprise party for him. When he arrived, he was greeted by a large number of friends and former patients and especially by the "babies" he delivered during the many years he practiced in Honolulu. There was much evidence of the special relationship he had with his patients, perhaps even more telling because Vasconcellos has been retired for the past 10 years! Varian Sloan, a longtime friend, presented him with his 35-year membership pin on behalf of the Academy of Family Physicians. Vasconcellos was instrumental in chartering the Hawaii chapter in 1951 and was its first president. Again we congratulate him and wish him many more years of happiness in his retirement.

Council News

The Executive Council endorsed the following slate of officers, delegates, and councilors for 1986: president (and already elected) — Lincoln Luke; president-elect — Don Farrell; secretary — Jennifer Frank; and treasurer — Lily Ning. Councilors through 1988 — John Aoki, Paul Esaki (Kauai), and Fred Reppun; Councilor through 1987 (for Lily Ning) — Sandra Penn; Councilor through 1986 (for Jim Tsuji) — Ken Steinweg. Delegate through 1987 — Lily Ning; alternate delegates — Nate Wong, through 1987, and Bernard Chun, through 1986.

Nominations are still open. If you have a suggestion, please call 235-3115. Elections will take place during the annual banquet on Feb. 23 at the Hilton Hawaiian Village.

The council has spent much time lately discussing problems with ICU privileges encountered by family physicians in Honolulu hospitals. Meetings are being conducted with the hospital administrative bodies and input is being obtained from the national Academy as well as the appropriate residency review committee. We will provide updates as the situation develops.

Annual Meeting

Last call for the HAFP Annual Meeting and Seminar, Feb. 22 and 23 at the Hilton Hawaiian Village. Orthopedics and rheumatology are the topics for the scientific session, with special emphasis on office management. The seminar has been approved for 10 hours of CME credit. Please mail your registrations right away or call 235-3115 if you need more information.

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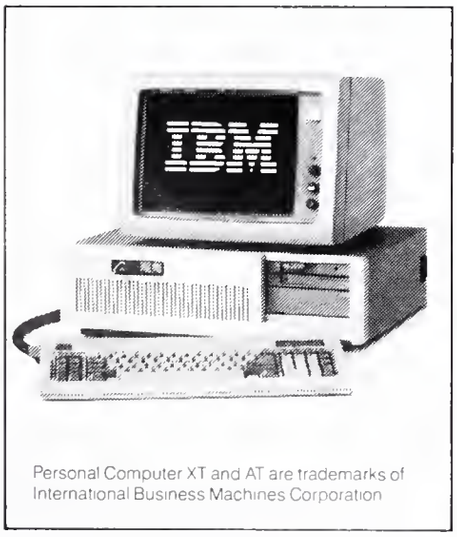

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Immune Thrombocytopenia in a Heterosexual Male Hemophiliac

Jan M. Johnston, MD, Eugene Yanagihara, MD, William Morioka, MD, Howard Chait, MD, Arwin Diwan, Ph.D., Jeffrey Nakamura, MD

This patient as you will note developed idiopathic thrombocytopenic purpura in association with hemophilia A, as well as concurrent HTLV-III antibody serconversion. He was treated with a combination of corticosteroids and splenectomy and had a successful therapeutic response to splenectomy. This is the first case of a hemophiliac in Hawaii with HTLV-III seropositivity, as well as thrombocytopenia of immune origin. We feel this is an important case to be documented in the literature, as this patient was successfully managed with the splenectomy.

Introduction

This is the first report in Hawaii of the occurrence of immune thrombocytopenic purpura, reversed T-helper to suppressor lymphocyte cell ratio, and HTLV-III seroconversion in a 30-year-old heterosexual male hemophiliac. The syndrome of idiopathic thrombocytopenic purpura (ITP) typically has occurred in women, but most recently has been associated with classic hemophilia[1] and in homosexual men.[2, 3] Indirect evidence has suggested that the Acquired Immune Deficiency Syndrome (AIDS) can be transmitted via Factor VIII concentrates,[4] putting hemophiliacs in a high-risk group to acquire AIDS. Epidemiological evidence implicates a blood-borne pathogen, a retrovirus, HTLV-III, to be the cause of AIDS.[5] This report summarizes the clinical studies and successful management of this HTLV-III-associated thrombocytopenia by corticosteroids and splenectomy.

Case Report

The patient is a 30-year-old heterosexual male of Filipino extraction with a history of severe hemophilia-A, complicated by multiple joint deformities secondary to hemorrhages and a prior subdural bleed in April 1983. He requires Factor VIII infusions approximately six times a month. He has no history of intravenous drug abuse.

In July 1984, he was noted, as an outpatient, to be thrombocytopenic with a platelet count of 60,000, which then fell to 37,000 in August. A bone marrow examination was remarkable for adequate numbers of megakaryocytes. Platelet-associated IgG titer was elevated at 24,974, with a normal titer being less than 8,000. The patient was treated with Danazol and his platelet count was maintained in a range of 42,000 to 62,000 over the ensuing months. Additional studies done as an outpatient included a normal total serum complement, negative ANA, elevated immune complexes with a level of 753 (normal 250, intermediate 50 to 100, and elevated greater than 100, and negative hepatitis-B surface antigen. The helper/suppressor cell ratio was reversed at 0.76 (normal greater than 1.5).

The patient was admitted to Kuakini Medical Center in October 1984 with a frontal headache of one week's duration. There was no history of trauma, fevers, vomiting, paresthesias, weakness, or visual disturbances.

Physical examination revealed an alert, though slightly anxious, young man wearing leg braces. Blood pressure was 142/100, P 80, R 20. Temperature was 99.1. There were no skin lesions. Examination of the head and neck revealed no evidence of trauma, and the fundi were normal. The neurological system was intact and the remainder of his examination, other than his joint deformities, was within normal limits.

Laboratory studies showed a hemoglobin of 14.3, Hct 42.7, WBC 5.5 with 69% segs, 19% lymphs (absolute count = 1,045), 11% monos, 1% eo. Platelet count was 63,000. Prothrombin time was 12.7 with a control of 12.2; partial thromboplastin time was 85 with a control of 29. The assay for HTVL-III antibody was positive. HTLV-I antibodies were not detected.

Computerized tomography of the head revealed a small acute subdural hematoma along the right side of the tentorium. Because of the patient's previous intracerebral hemorrhage, cerebral angiograms were obtained. These showed no evidence of an aneurysm or arteriovenous malformation, thus excluding any underlying congenital abnormality.

The patient was treated with Factor VIII infusions to maintain his Factor VIII level near 100%. His headache decreased in severity and a repeat CT head scan five days after admission showed no change in the size of the hematoma. The patient was discharged in stable condition on the sixth day of his hospital stay.

On Jan. 19, 1985, the patient was readmitted, again with a chief complaint of a severe headache. Platelet count was 59,000. CT-Scan of the head showed a marked left-to-right shift with a frontoparietal subdural hematoma. He was treated with mannitol and with platelet transfusions. Because of his elevated platelet-associated IgG titer, a trial of steroids was instituted with a rise in his platelet count to 102,000. He underwent splenectomy on Jan. 30, 1985, after which his steroids were rapidly tapered down. Platelet count response was dramatic, and prior to discharge it was 465,000. In addition, his subdural hematoma had resolved.

A summary of his platelet count response to a variety of treatment modal-

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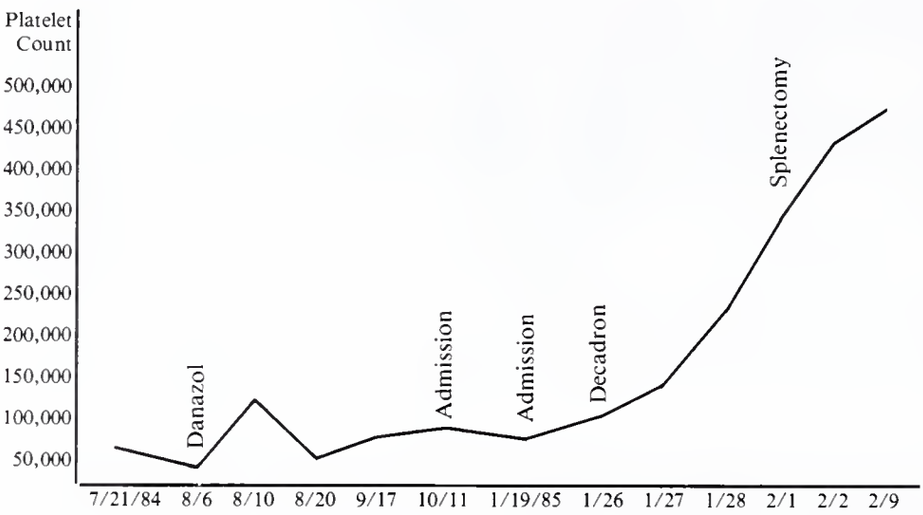
FIGURE I.



ities is shown in Figure I.

Discussion

As previously mentioned, the syndrome of idiopathic thrombocytopenic purpura typically has occurred in women, but most recently has been associated with classic hemophilia[1] and in homosexual men.[2, 3] Five patients with classic hemophilia developed ITP, and three of them were found to have impaired cell-mediated immunity.[1] All five patients had increased amounts of platelet-associated IgG; four patients were treated favorably with prednisone, and the fifth responded to splenectomy. A causal relationship between lyophilized Factor VIII and ITP has yet to be determined. HTLV-III antibodies were not examined in these patients.

In addition, autoimmune thrombocytopenic purpura was studied in homosexual men who had no evidence of Kaposi's sarcoma or opportunistic infections.[2] However, they did have a history of numerous viral, drug, and sexual contacts. The homosexual group was noted to have relative lymphopenia, hypogammaglobulinemia, and elevated circulating immune complexes as compared to a control group of women with classic ITP. Both groups responded to corticosteroids or splenectomy.

A second study investigated the mechanism for ITP in homosexual men.[3] The authors concluded that the thrombocytopenia in homosexual men was related to non-specific deposition of complement and immune complexes on platelets in contrast to simply antiplatelet IgG directed against platelet antigenic components as seen in normal controls with classic ITP. The homosexual patient had elevated serum levels of immune complexes, a 3.8-fold higher level of platelet-bound IgG, and a 4.2-fold higher level of platelet-bound complement when compared with controls.

The mechanism of thrombocytopenia in this patient with hemophilia remains undetermined, but it is presumably related to his exposure to HTLV-III. He has antiplatelet antibody, as well as elevated circulating immune complexes. Immune-complex disease or antiplatelet antibodies both might be expected to respond to corticosteroids or a splenectomy. Particularly gratifying is this patient's response to these therapies.

As of Oct. 15, 1984, 48 cases of AIDS had been reported to have occurred among hemophilia-A patients.[6] Three of these patients are known to have risk factors for AIDS other than hemophilia. The incidence rate of the clinical manifestations of AIDS are 3.6 cases/1,000 hemophilia-A patients and 0.61 cases/1,000 hemophilia-B patients.

The immune system of otherwise healthy hemophiliacs who received lyophilized antihemophiliac factor concentrates, or cryoprecipitate, has been examined and found to be impaired.[7] When compared with controls, hemophiliacs treated with Factor VIII had a relative decrease in helper T-cells, a relative and absolute increase in suppressor cells, and a depressed helper/suppressor T-cell ratio. In addition, they had diminished lymphocyte proliferative responses and depressed natural killer cell activity. Hemophiliacs treated with cryoprecipitate did not have differences in lymphocyte counts, cell surface markers, or functions when compared with controls.

A Canadian study has substantiated this evidence though its hemophiliac patients treated with cryoprecipitate were found to be anergic.[8] Patients with AIDS were noted to have a further magnitude of immunological impairment with absolute decreases in helper T-cells and absolute increases in suppressor cells. Whether those hemophiliacs with altered cell-mediated immunity will proceed to develop opportunistic infection and the full spectrum of AIDS remains to be determined.

Conclusions

Although our patient has a reversed T-helper suppressor-cell ratio, relative lymphopenia, HTLV-III seroconversion, and is a member of a high-risk group, he is presently without a history of fevers and recurrent life-threatening infections. He does have cervical lymphadenopathy and weight loss. The human retrovirus, HTLV-III, causes AIDS: however, only half of 66% of otherwise asymptomatic hemophiliacs with functional immunodeficiency were found to be seropositive for HTLV-III,[5] implying, perhaps, the presence of additional factors for the development of AIDS. A recent study showed that 85% of 21 patients with Hemophilia-A in a California clinic had HTLV-III antibody in 1981, 1982, or 1983.[9] The investigators noted that seroconversion in hemophiliacs began shortly after the AIDS epidemic took place among homosexual and intravenous drug users, supporting the fact that HTLV-III is the etiologic agent of AIDS. Whether seropositivity means the patient is infected with the virus and will contact AIDS, or whether he is immunized against AIDS, is as yet undetermined. Our patient will be monitored from now on for the development of opportunistic infections or malignant diseases. He is the first hemophiliac in Hawaii with thrombocytopenia who has been identified and managed successfully with corticosteroids and splenectomy.

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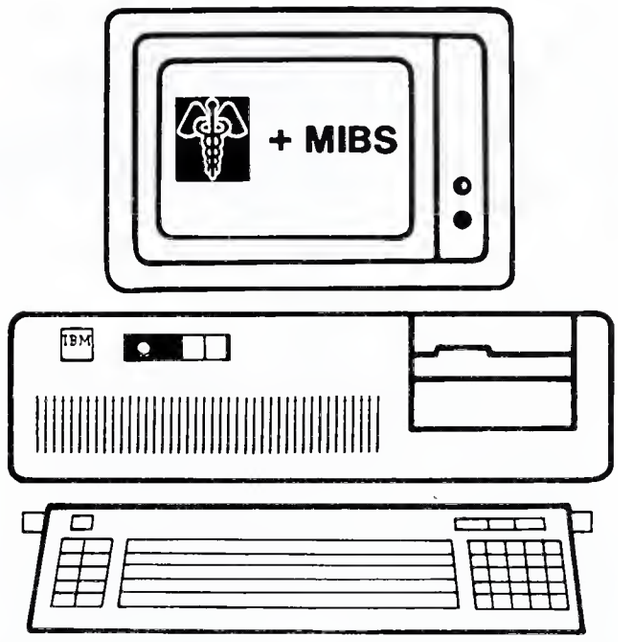

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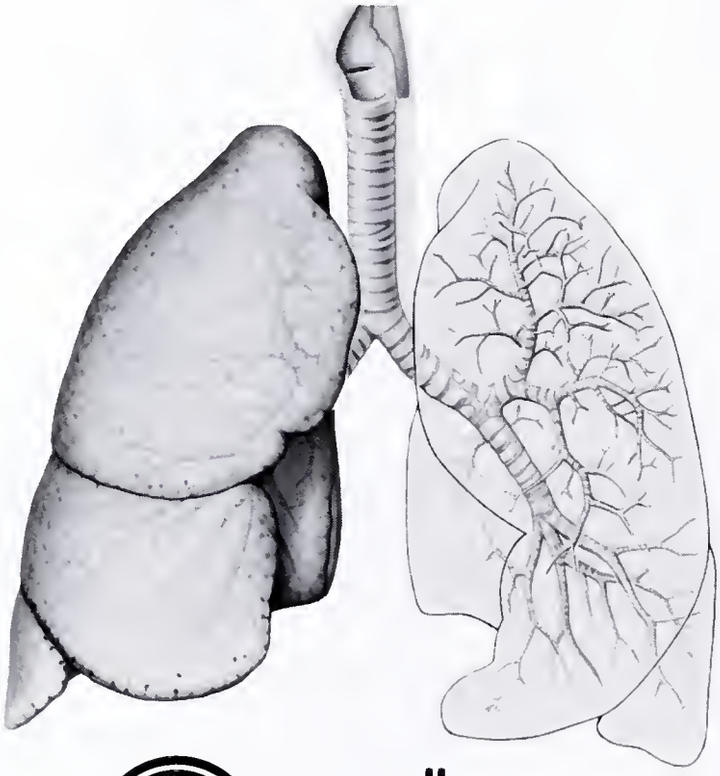

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Precautions *General Precautions* — If an allergic reaction to Ceclor® (cefaclor, Lilly) occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly)

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis

Usage in Pregnancy — Pregnancy Category B — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor There are, however, no adequate and well-controlled studies in pregnant women Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed

Nursing Mothers — Small amounts of Ceclor® (cefaclor, Lilly) have been detected in mother's milk following administration of single 500-mg doses Average levels were 0 18, 0 20, 0 21, and 0 16 mcg/ml at two, three, four, and five hours respectively Trace amounts were detected at one hour The effect on nursing infants is not known Caution should be exercised when Ceclor is administered to a nursing woman

Usage in Children — Safety and effectiveness of this product for use in infants less than one month of age have not been established

Adverse Reactions Adverse effects considered related to therapy with Ceclor are uncommon and are listed below

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70)

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment Nausea and vomiting have been reported rarely

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100) Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor Such reactions have been reported more frequently in children than in adults Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy No serious sequelae have been reported Antihistamines and corticosteroids appear to enhance resolution of the syndrome

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients)

Causal Relationship Uncertain — Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic — Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200)

[061782R]

Note Ceclor® (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information

Additional information available to the profession on request from Eli Lilly and Company Indianapolis, Indiana 46285

Eli Lilly Industries, Inc
Carolina Puerto Rico 00630

400440

HMA Auxiliary

Lila Johnson

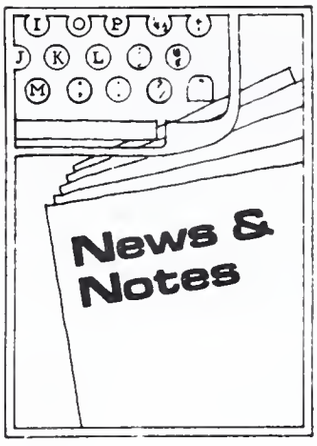
Auxiliary Names New Officers

At the 1985 Annual Session held Dec. 12, 1985, at the Kahala Hilton Hotel, the new officers for the 1986 HMA Auxiliary Council were installed. They include: Ella Edwards (John) — president; Edith Don (Andrew) and Gwen Fu (Denis) — vice presidents for administration; Joyce Chuang (Katok) — vice president for historical matters; Kathy Oldfather (Timothy) — vice president for secretarial matters; and Bonnie DeJournett (Richard) — vice president for finance.

Participating in the installation was Mary Kay McPhee, 1985-86 president of the American Medical Association Auxiliary.

A special tribute in the form of a resolution was made to Florence Goto (Unoji) for her many years of dedicated service to the Auxiliary.

Ella Edwards, above left, Mary Kay McPhee, above right, and new HMA Auxiliary Officers, bottom left to right, Emily Callan, 1985 HCMS Auxiliary President; Ella Edwards, 1986 HMA Auxiliary President; Bonnie DeJournett, 1986 HCMS Auxiliary President; and Lila Johnson, 1985 HMA Auxiliary President, were featured guests at the Auxiliary's December Annual Session at the Kahala Hilton Hotel.



Henry Yokoyama, MD

Life in these Parts . . .

We are happy to learn that our beloved founding editor, Harry L. Arnold Jr., who now lives in San Francisco, had a mild CVA or a TIA in June but has recovered fully and is as active as ever (per Fred Reppun).

Ruminations . . . The seat belt law became effective Dec. 15. As we reached awkwardly for our shoulder strap for the umpteenth time while traveling 50 mph on the freeway, we wondered if the new law may not contribute to more accidents. Certainly there must be others like us who never used seat belts before. Habits are difficult to change. . . .

Sportsmen

The annual HCMS Golf Tournament was held the afternoon of Wednesday, Sept. 18, at Kaneohe Marine Corps Air Station with more than 90 participants present. Tournament directors Ron Perry and William Dang managed to hustle enough prizes for everyone. . . . When the dust finally settled, Neil Shibuya was low net with a 59. Eugene Matsuyama was low gross with 74. Ron Perry was second low net with a 60. Tied at net 66 were Paul Sunahara and Richard Ho. The real star of the tournament was Bill Morioka, who chipped in his birdie on the ninth hole to win the use of a $37,000 Jaguar for a year. He had to pay gift tax and insurance and has the option to purchase the Jaguar for $27,000. . . .

The annual HMA Golf Tournament was held Sunday, Oct. 13, at Keauhou Kona with 65 golfers on hand. Mike Okihiro was low gross with 79. Tied for low net at 68 were Wayne Nadamoto and Frank Fukunaga. Coolidge Wakai was third with a net 70 and Ray Wong fourth with a net 72. . . .

Professional Moves

The Year of the Ox has come and gone and we are in deep trouble. . . . Let us now reach back to the month of February for several announcements: A Barry Odegaard relocated to The Ala Moana Medical Clinic, Inc. at 1441 Kapiolani Blvd., Suite 415; orthopod Thomas Owens relocated from Suite 904 to Suite 407 at the Queen's POB and internist Hiram Liko Kwai-Heen Young joined the Waimea Clinic on Kauai at its Eleele Dispensary. . . .

In March, FACOG James Lyons opened his office in the Kahuku Family Health Center; psychiatrist Richard Jacobson opened in the King Kalakaua Center; and, on the Garden Isle, Conrad Miller replaced Robert Freeman in his Haleko Clinic, Lihue.

April found pulmonologist Bruce Soll relocating to the Queen's POB Suite 709; pediatric hematologist Robert Wilkinson opened at 1319 Punahou St., Suite 1050; Steven MacBride, former professor of medicine at the University of Chicago, joined the Straub Clinic in Kailua and gastroenterologist Rodney Kazama opened his offices at 419 Uluniu St., Kailua, and 1520 Liliha St., Suite 701, Honolulu. On Maui, Ronald Kwon (adult and adolescent medicine) opened at 1827 Wells St., Wailuku. In Kona, dermatologist Timothy Knight opened at Kailua Trade Center. . . .

In May, rheumatologist Roger Ogata moved to Kuakini Medical Plaza, Suite 709, and internist Glenn Uto relocated his medical arts office to his main office at Kuakini Medical Plaza, Suite 607. Plastic surgeon Guido Lozada opened his office at Kapiolani; anesthesiologist Nancy Reierson joined Ralph Suetsugu and Alan Suyama at Century Square, Suite 1205 and OB-Gyn man Victor Chang opened a Honolulu office at 801 Kaheka and a Pearl City office at 850 Kam Hwy. In West Hawaii, internist Pachnee Pathomvanich relocated to Kuakini Professional Plaza, Suite 100.

June and July, the traditionally busy months, lived up to their billing. Internist Laurie Lee joined The Medical Clinic at Holiday Mart Honolulu and Holiday Mart Pearl City; eye man O.D. Pinkerton closed his Wahiawa office and opened full-time at Kaheka Professional Center, Suite 427; fellow eye man Shigemi Sugiki relocated to Suite 714, Queen's POB; internist Stephen Wee and pediatrician Theresa Young Wee opened at the Wahiawa General Hospital's Waipio Gentry Medical Clinic. On Kauai, orthopod Conrad Clifford joined the Kauai Medical Group and fellow orthopod Thomas Grollman relocated to 4381 Kukui Grove St., Suite 3, Lihue. On Maui, OB-Gyn man Michael Kim opened at 31 Kamehameha Ave., Kahului; Mark Walton closed his office, and Wolfgang Pfaeltzer announced his retirement. In West Hawaii, cardiologist Morton Berk and Roy Nagle moved to the Kainaliu Center. . . .

In July, dermatologist Ned Stoughton opened at 302 California Ave., Suite 102, and OB-Gyn man Ronald Ayabe joined Nihal DeSilva at the Aiea Medical Building. On Kauai, OB-Gyn person Nadine Clapp and urologist Vincent Ortolano joined the Kauai Medical Group. . . .

And internist Edwin Yee joined the Chock-Pang Clinic; hematologist-oncologist Gordon Nakano opened at Queen's POB, Suite 804; dermatologist Paul Takiguchi opened at the Pearlridge Bank of Hawaii Building, Suite 627; eye man Jon Portis and orthopod Terry Vernoy joined The Fronk Clinic; dermatologist Douglas Johnson opened at Queen's POB, Suite 401, orthopod Clifford Lau and pediatric gastroenterologist Ken Nagamori joined the Honolulu Medical Group; rheumatologist Panu Limpisvasti opened at 1520 Liliha St., Suite 702. On Maui, OB-Gyn person Coleen Inouye opened at Kihei Physicians, 1325 S. Kihei Rd., and at Maui Clinic, 53 Puunene Ave., Kahului. On the Kona coast, Jonathan James and Edward Silver relocated to the Village Professional Plaza, Suite 101, 75-5759 Kuakini Hwy. . . .

August was unusually slow. The Fronk Clinic added OB-Gyn man Robert Allin, GI man Richard Marina, and internist Christopher Mathews. Cardiovascular surgeon Dean Nakamura joined Richard Mamiya at the Queen's POB, Suite 710, and OB-Gyn man Nathan Fujita joined the Central Medical Clinic at KMP. West Hawaii is where the action is. Gunars Medins closed his office and surgeon Alistair Bairos joined the Kona Medical Associates. In Hilo, pediatrician Wanda Meurs joined the Hilo Medical Group. . . .

RBC Data Re: MCV and RDW

The featured speaker was a displaced Irishman from North Dakota School of Medicine with the moniker Patrick C.J. Ward. He is massive physically and intellectually and has his own brand of humor. "My mother told me when I left Ireland many years ago, 'Watch those Americans. . . . They may have tumors, brain disease, one leg, etc., etc., but the only thing that bothers them is loose stools!' " A 75-year-old Swede had loose stools and the admitting diagnosis "irritable bowel syndrome." His MCV was over 123.5 and RDW 17.6. The smear showed oval normocytes which could mean B12 deficiency, Folate deficiency or myelodysplastic syndrome. Serum B12 was less than 100, serum folate and RBC folate were WNL. Gem: "You must do all three studies — 45 to 70% of all hospital patients have low serum folates. They are not eating, and serum folate is a poor index. . . . One must do a RBC

folate — 60% of patients with B12 deficiency have low RBC folate."

An 81-year-old man had three shots of whiskey per day since age 20 "no more, no less" and a 10-year history of imbalance. But he was fine till one month PTA, when he started to see his wife (deceased 18 months) coming through the bedroom wall with a meat cleaver. MCV and RDW were normal, but the neurologist still ran a serum B12, which was very low while serum and RBC folates were WNL. "Neurologists do B12 studies on those who even slow down on the streets. Most neurologists cannot even spell Schilling (test), but they made the correct diagnosis in this case of B12 Madness or B12 Lunacy. . . ."

A 25-year-old black man came to the U.S four years ago from Liberia to study and he got into an auto accident. The RBC data showed low MCV (66.4) and high RDW (15.7). DDx: Thalassemia or Fe-deficiency anemia? Fe and TBC were WNL and serum ferritin slightly low. "Early Fe deficiency in Liberia? Look for a trail of blood in the sand dunes." Eosinophil count was elevated (648) which is 12%. . . .

"Physicians cannot add or multiply so we give them absolute numbers. Percentages cause a lot of confusion in physicians. The stool showed Necator Americanus. You could listen to the slide and even hear a hum as the parasites jumped over each other."

A 74-year-old woman, known to be alcoholic, was admitted with chills, frequency and dysuria of two weeks' duration. She had an elevated MCV (104.7) and normal RDW. Gem: "An elevated MCV is the best index for an alcoholic. Folate deficiency is rare in alcoholics. MCV elevation is a direct effect of alcohol on the marrow. Serum Fe, serum folate and RBC folate were WNL, which is typical for alcoholics. . . ."

A 28-year-old homosexual from Los Angeles was admitted for weakness, dizziness, headaches and photophobia. Both syphilis and herpes were found and he was considered a candidate for having AIDS. Ward ad-libbed, "This was a lovely man . . . would have been a good candidate for hospital administrator." The RBC data showed HB, low HCT, high MCV and high RDW (33.5). "All garbage data — the only reliable data are the Hb and RDW." the RBC slide showed a classic curve for cold agglutinins. Dx: "Clump platelets." (Clumping due to cold agglutinins.)

A 35-year-old man with a long history of CML went into an acute myelomonocytic phase which quickly relapsed and became totally refractory to further chemotherapy. On "D-6" (Neat way of saying days before dying), his morning and afternoon RBC data showed totally different curves. "Akinecytosis in the Morning! What a great title for a book." Ward waxed poetic. The most common cause for the discrepancy is bad drying. He feels that fat techs cannot properly air-dry slides and poor drying shows increased targeting. . . .

The drying, however, was done by a thin, cadaveric tech . . . he had drawn blood with the hyperalimentation line open. . . .

Between cases, Tom Reppun, Kaiser pathologist, showed his own data on microcytosis with elevated RDWs: Reppun's series were as follows: Thalassemia 48%; Fe-deficiency 94%; other hemoglobinopathies 38%; chronic disease 100%. (RDW normal range is 11.6 to 14.8%.)

Personalities

We have often referred to Ralph Cloward as our peripatetic Honolulu neurosurgeon because he was forever off to some distant part of the world lecturing and demonstrating his surgical techniques and his feats of mercy had become legend, i.e. until 10 or 15 years ago, when we stopped hearing of his activities. So we wrongly figured that our favorite neurosurgeon had semi-retired. One evening after Frank Roger's lecture on "Contract Medical Care" we walked out of Mabel Smyth auditorium with Dr. Cloward and casually asked what he was doing these days. Less than a week later, his nurse of 45 years, Edith Yoshioka, sent us brochures of his current activities. We learned that he conducted a PLIF workshop at QMC on Sept. 26 through 28 with 115 surgeons from all over the world attending. This was PLIF Workshop IV, and the third conducted in Hawaii since 1981.

What is PLIF? Thought you would never ask. PLIF is the technique Cloward invented 40 years ago. It stands for Posterior Lumbar Interbody Fusion. As Cloward puts it, "Now, younger neurosurgeons and orthopods are looking at this 'old' procedure and wanting to learn it. . . ."

Next, he was lecturing at the 35th Annual Meeting of the Congress of Neurosurgical Surgeons Sept. 30 to Oct. 4 in Waikiki on "Anterior Approaches to the Cervical Spine," "Spinal stabilization," "Lumbar Spinal stenosis," "Posterior Lumbar Interbody Fusion," etc. Then off to Caesar's Palace Hotel, Las Vegas, where the American Academy of Neurological and Orthopedic Medicine & Surgery had its 1985 scientific convention on Oct. 17 to 22.

Cloward was the Presidential Guest Lecturer and gave talks on lumbar spinal stenosis, spinal nerve decompression using MIDAS-REX, PLIF and anterior cervical fusion of cervical disc disease. (The 1985 president of the academy was Straub's Kenneth K. Nakano, MD, FAA NaOS-C and Ray Taniguchi spoke on surgical treatment of hemifacial spasm at the Congress meeting.)

Well, this indefatigable neurosurgeon with the bald pate hasn't aged a day since 30 years ago when we scrubbed for him at Queen's. He is still the same dynamo and innovator. The Las Vegas program carries this quote by Nabokov: "Without fantasy, there is no science; without fact, there is no art." Somehow the quote personifies Ralph Cloward's inventive genius. . . .

A RECENT ISSUE OF MEDICAL LETTER DISCUSSES THE NEW INJECTIBLE DRUG LEUPROLIDE FOR PALLIATION OF ADVANCED PROSTATIC CANCER. However, the drug costs the pharmacist $131.25 for a 14-day supply, as compared with 25 cents a day for DES. MEDICAL LETTER concludes: For palliation of advanced prostate cancer in previously untreated patients, injected leuprolide appears to be as effective as estrogen and better tolerated, but it is expensive. The new drug is much less effective on patients previously treated with estrogens or orchiectomy. Symptoms may worsen during the first weeks of treatment with leuprolide.

A RECENT COMPARISON OF THE COSTS OF DPT VACCINE FOR THE PRIMARY IMMUNIZATION OF INFANTS AGAINST SUCH LIFE-THREATENING DISEASES AS DIPHTHERIA, PERTUSSIS AND TETANUS points up the effect on the family's pocketbook of the products liability suits epidemic in this country the past several years.

A 7.5 ml vial of DPT (15 doses) that cost an astronomical $46.20 in April 1985 now costs $70.75 — an increase of 65%. This is nearly $5 a dose, and does not include charges for administering it.

A windfall to one means a rise in costs to all!

LRH ANALOGUES ARE OPENING A NEW ERA IN PALLIATIVE TREATMENT OF ADVANCED PROSTATIC CANCER. An enthusiastic audience of urologists, oncologists and endocrinologists gathered in Japan to hear about the latest developments in the hormonal treatment of advanced cancer of the prostate.

Interest in the newest class of endocrine agents — analogues of luteinizing hormone releasing hormone (LHRH) — knows no international boundaries; in many countries around the world, including the United States, cancer of the prostate is one of the leading causes of cancer deaths in males.

The chairman of the workshop session, Dr. Marc B. Garnick of the Harvard Medical School and Dana-Farber Cancer Institute in Boston, Mass., put hormonal therapy in perspective: "Leuprolide is therapeutically equivalent to DES for objective response, time to treatment failure, and overall survival. Leuprolide maintains castrate levels of T and DHT indefinitely. Leuprolide produces fewer side effects, and they are of a less serious nature than those of DES."

Patients assigned to DES experienced more painful gynecomastia, nausea and vomiting, edema, and thromboembolism than those on leuprolide. (Note: Leuprolide, given 1 mg daily for a long period of time, is very, very expensive./ed.)

RECOMBINANT DNA PRODUCTS A POSSIBLE KEY TO REPLACING EXISTING ANTIARTHRITIC DRUGS. To relieve arthritis, a disease that affects joints between bones, 35 million Americans spend $2.5 billion a year on products ranging from aspirin to expensive prescription drugs. New drugs that can be produced by recombinant DNA (rDNA) techniques, also known as gene splicing and genetic engineering, may replace some of these drugs. The recombinant products promise no cures, but they may be more effective and have fewer harmful side effects than those currently available.
(Genetic Technology News covers all the latest developments in the field of recombinant DNA, including medical, chemical, agricultural, and food applications. GTN is available from Technical Insights, Inc., P.O. Box 1304, Fort Lee, N.J. 07024, or by calling (201) 568-4744./Ed.)

BIOHYTECH HAS INTRODUCED A NEW AFP TEST KIT FOR MEDICAL LAB USE. A new serum alpha-fetoprotein (AFP) test kit that offers 50 % greater accuracy than radioimmunoassay tests for AFP, as well as safety and time- and labor-saving advantages, is being introduced by BioHyTech International, Inc.

Measurement of AFP levels in the blood serum of pregnant women gives physicians a simple and non-invasive means of screening for birth defects. Elevated levels of AFP in the mother's blood may indicate the presence of fetal neural tube defects, anencephaly or other disorders. Unusually low AFP levels may indicate placental insufficiency, which can result in physical and mental development problems associated with low birth weight and defects such as Down's Syndrome. High AFP levels in the blood of non-pregnant adults can be indicators of ovarian, testicular or hepatic cancers.

In the tests, the kit showed near zero level of false negative results and a 1.5 % rate of false positive results in tests adminstered to 15,828 patients.

The technology for the BioHyTech product stems from monoclonal antibody research done by Dr. Hanoch Slor, BioHyTech's senior vice president for research and development. Dr. Slor also is chairman of the Department of Human Genetics and director of the Laboratory of Human Genetics at the Sackler School of Medicine of Tel Aviv University.

Additional information on BioHyTech's AFP test kit can be obtained by contacting Raymond Willis at BioHyTech International, Inc., 35 E. Wacker Dr., Suite 2374, Chicago, Ill. 60601.

HMSA Answers Physicians' Questions

Q: Please explain how HMSA decides that some procedures are not acceptable for payment under the plan because they are "experimental." This seems to apply quite often to new methods of diagnoses or treatment involving new technologies and to some surgical procedures which have been successful here and elsewhere.

A: To be covered by HMSA health plans, all services must follow standard medical practice. This means that most physicians in the nation regard the service as safe and effective. If a service is in its trial stages (e.g., "experimental" or "investigative") the service is not considered standard medical practice.

HMSA gathers information from several sources in its determination of "experimental" or "investigative" services. These include published reports from the federal Health Care Financing Administration and the Food and Drug Administration, the national Blue Cross and Blue Shield Association (which receives direct input from the American Medical Association and other national specialty societies), surveys of individual Mainland Blue Cross and Blue Shield Plans, and consultants with local specialty physicians.

Q: When a new medical, surgical, or diagnostic procedure is introduced into the HMSA benefit structure, how is the allowance determined?

A: When a service is performed for the first time in Hawaii or so infrequently that an eligible charge is not available, HMSA's medical directors determine the eligible charge by comparing the complexity of the infrequent service with similar, frequent services. Additionally, other Blue Cross and Blue Shield plans are surveyed to determine the degree of complexity established in other areas. A nationwide problem has been the establishment of high fees for new procedures at the time when skills and procedures are still being developed, with no subsequent reduction in fees when they become routine and established.

The HMA/HMSA Ad Hoc Committee regularly submits questions posed by practicing physicians to HMSA. Readers are invited to comment — and to submit questions to the committee. Questions and answers are published as space permits.

Book Reviews

Cardiorespiratory Disorders During Sleep, R.J. Martin, MD, 323 pp. Futura Publishing Co., Inc., Mount Kisco, New York, 1984.

Disorders of sleep are common and present themselves clinically in many unexpected ways, such as in systemic hypertension, polycythemia, and respiratory failure. Numerous similar publications are available and one might ask what this one has to offer. It is written by an investigator in clinical practice, who shares with the reader excellent illustrative patient histories against a background of the literature. The section on nocturnal asthma is particularly well-done.

There is extensive use of tables, figures, graphs, and one or two photographs. References are extensive and timely and the index is adequate.

A few minor criticisms could be made. The style is rather awkward, with repetitious use of the same words. Occasionally, a large table and two or three lines of text share a page, or a table is split over two pages for little apparent reason and results in confusion.

In balance, this book is recommended for pediatricians, generalists, and pulmonary specialists.

Douglas G. Massey, MD
John A. Burns School of Medicine
Assistant Editor
HAWAII MEDICAL JOURNAL

How to Edit a Scientific Journal, C.T. Bishop, 138 pp. ISI Press, Philadelphia, 1984. $14.95.

Although this small book is purportedly written for a select circle of readers, those who wish to know what goes on in the editorial office of a scientific journal, it contains a wealth of practical information for anyone who wishes to ensure that the local medical journal is up to snuff.

On the basis of 17 years of experience as the editor of 12 journals, the author addresses such questions as: Who should be an editor? How should references be selected? What is the role of the editorial board? To what extent should editors be involved in publishing functions such as copy editing, financial management, distribution, and marketing?

Directly stemming from these answers, it is the basis for quality of a journal as an instrument of education and information. The author's answers are directly and indirectly based on the premise that

the "editors of scientific journals must be active scientists whose main activity is research."

The style is easy and well laced with humor, allowing one to skim the book in an hour or so.

This small paperback admirably fulfills its stated function.

D.G. Massey, MD
John A. Burns School of Medicine
Assistant Editor
HAWAII MEDICAL JOURNAL

Current Emergency Diagnosis & Therapy, Second Edition, John Mills, MD, Mary T. Ho, MD, Patricia R. Salber, MD, and Donald D. Trunkey, MD (Eds.), 864 pp. Lange Medical Publications, Los Altos, Calif., 1985. $28 (paperback).

This publication is one of a series self-described as "A Concise Medical Library for Practitioner and Student." As with other Lange publications, there is a studied use of outline format, illustrations, tables, and flow charts.

Of necessity, the emphasis is on breadth as well as clinical application. Along with a wide variety of clinical topics ranging from prehospital care and burns to environmental and infectious disease emergencies, there are chapters on emergency department design, legal aspects, and emergency procedures. In the interest of brevity the authors avoid research and treatment controversies but as a result treatment recommendations at times appear dogmatic. Chapters end with a list of relevant selected references.

The text is an easily read, concise reference ideal for house staff, generalists, and subspecialists, but emergency physicians will need supplements. The informal format makes frequent updates likely and these should include contributions from board certified emergency specialists and a chapter on the evolution and professional organization of emergency medicine.

Wesley K.W. Young, MD, F.A.C.E.P.
Kaiser-Permanente

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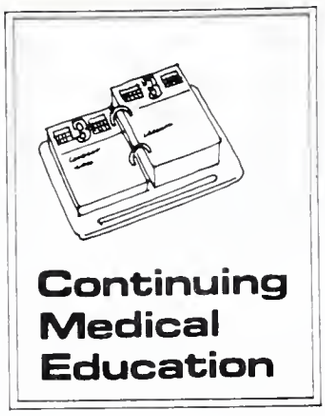

CALENDAR OF ACCREDITED EVENTS—CATEGORY 1

Accredited Programs of CME allow one unit of AMA credit for each hour of instruction excluding all "breaks." Some programs also are accredited for AAFP prescribed credit.

LOCAL ACCREDITED PROGRAMS

ONGOING

For a complete list of ongoing programs, please refer to the September 1985 issue of the HAWAII MEDICAL JOURNAL. Further information is available through the individual institutions or through the HMA's CME Department.

SPECIAL EVENTS

All special events should be confirmed with the CME program sponsors, as cancellations are not necessarily reported to the HAWAII MEDICAL JOURNAL.

Feb. 5, 1986	Human Values and Family Health Care, March of Dimes, Janet Huff, RN, 600 Kapiolani Blvd., Honolulu 96813, (808) 536-1045. Location: Hale Koa Hotel.
Feb. 7, 1986	Genetic Decisions: Problems and Promises, March of Dimes and DOH/MCH Branch, Janet Huff, RN, 600 Kapiolani Blvd., Honolulu 96813, (808) 536-1045. Location: Hale Koa Hotel.
Feb. 8-14, 1986	Perinatal Medicine, University of Southern California, School of Medicine, Postgraduate Division, 2025 Zonal Ave., Los Angeles, Calif. 90033. Location: Royal Lahaina Hotel, Maui.
Feb. 9-13, 1986	14th Annual Obstetric Anesthesia Conference, Ohio State University, Arlene Rogers, Department of Anesthesiology, Ohio State University Hospital, 410 West 10th Ave., Columbus, Ohio 43210, (614) 421-8487. Location: Sheraton-Waikiki Hotel.
Feb. 9, 1986	Hawaii Asthma Allergy Symposium 1986, John T. McDonnell, MD, 46-001 Kamehameha Hwy., Suite 410, Kaneohe 96744, (808) 247-6070. Location: The Westin Ilikai Hotel, Honolulu.
Feb. 10-14, 1986	First Annual Cardiovascular Conference at Hawaii, American College of Cardiology, 9111 Old Georgetown Rd., Bethesda, Md. 20814. Location: Kona, Big Island.
Feb. 10-24, 1986	2-D and Doppler Echocardiography Symposium, Institute for Medical Studies. 30131 Town Center Dr., Suite 215, Laguna Niguel, Calif. 92677, (714) 495-4499. Location: Maui.
Feb. 15-20, 1986	Geriatric Medicine in Practice: 1986, Co-sponsored by Kuakini Geriatric Center, Pacific

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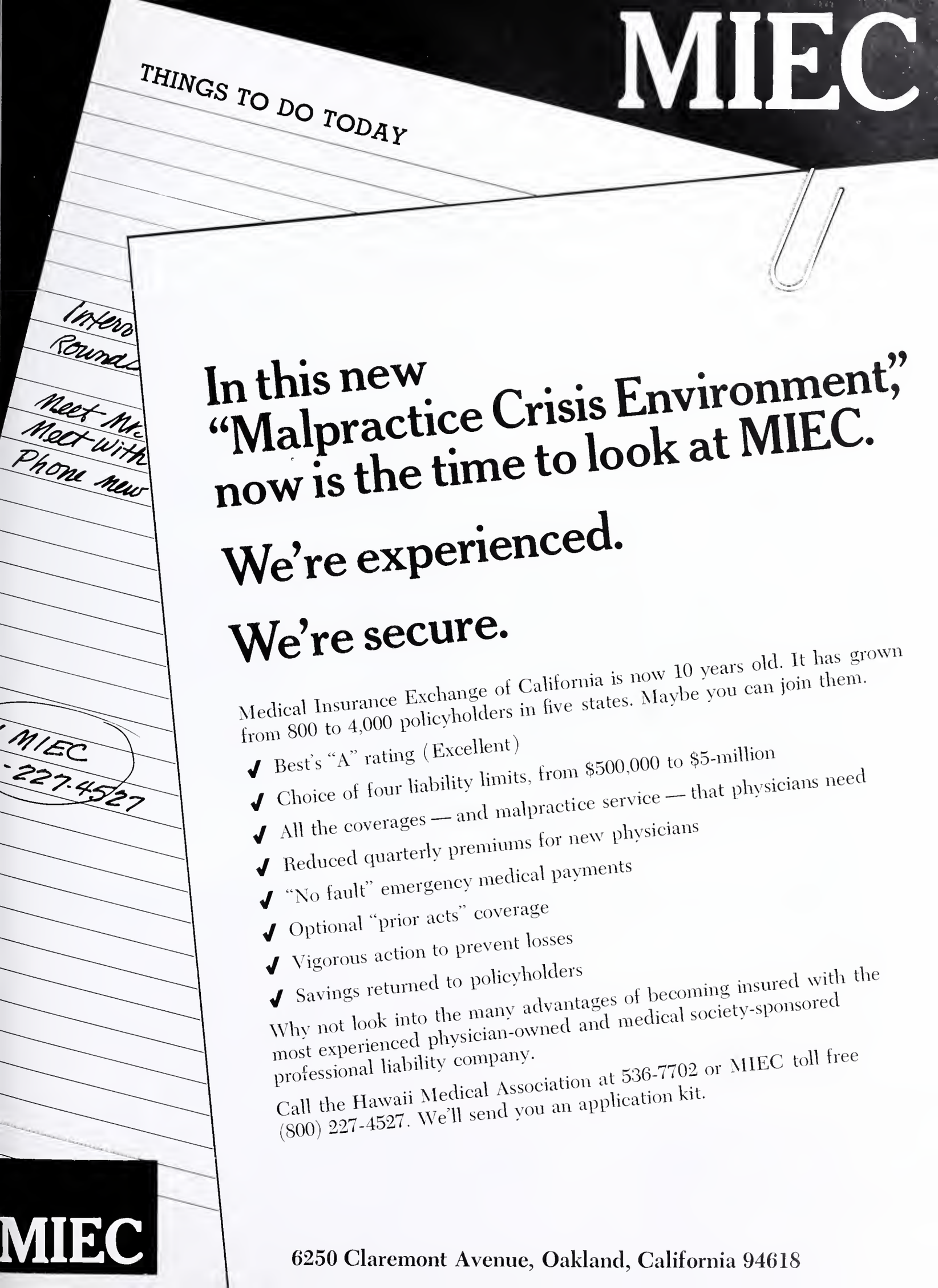
	Geriatric Education Center, Tripler Army Medical Center. Location: Hawaiian Regent Hotel, Honolulu.
Feb. 15-20, 1986	Pacific Coast Surgical Association Annual Scientific Session. Location: Maui Marriott.
Feb. 16-21, 1986	5th Annual Masters Diagnostic Radiology, Dr. Maurice Reeder, The Fronk Clinic, 839 S. Beretania St., Honolulu 96813. Location: Waiohai Hotel, Kauai.
Feb. 17-21, 1986	Hawaii 86: Update to Common Problems in Primary Care, Pacific Institute of Continuing Medical Education Inc., P.O. Box 1059, Koloa 96756, (808) 742-7476, Jay M. Murray, MD. Location: Waiohai Hotel, Kauai.
Feb. 17-21, 1986	Hypertension: Current Concepts and Recent Developments, International Medical Education Corporation, 64 Inverness Dr. East, Englewood, Colo. 80112. Location: Maui.
Feb. 19-21, 1986	Echo Tutorial, Straub Clinic and Hospital and The Institute for Medical Studies, (714) 495-4499. Location: Stouffer Wailea Beach Hotel, Maui.
Feb. 20-22, 1986	Father Damien's Leper Colony, University of Washington School of Medicine, Continuing Medical Education, Health Sciences Center, E-303, Seattle, Wash. 98195, (206) 543-1050. Location: Sheraton Molokai.
Feb. 22-Mar. 1, 1986	Trauma in Surgery, University of Washington School of Medicine, Continuing Medical Education, Health Sciences Center E-303, Seattle, Wash. 98195, (206) 543-1050. Location: Sheraton Royal Waikoloa, Big Island.
Feb. 22-Mar. 1, 1986	Orthopedic Emergencies, American Institute of Postgraduate Education, Edith S. Bookstein, Conference Management Associates, P.O. Box 2586, La Jolla, Calif. 92038, (619) 454-3212. Scripps Memorial Hospital-Encinitas & University of California at San Diego School of Medicine, 354 Sante Fe Dr., Encinitas, Calif. 92024. Location: Maui Marriott.
Feb. 24-26, 1986	Hawaii Ophthalmological Surgical Midwinter Seminar, Ophthalmology Service, Department of Surgery, 1319 Punahou St., Suite 1110, University of Hawaii School of Medicine, Honolulu 96826, Malcolm R. Ing, MD, (808) 955-5951. Location: Halekulani Hotel, Honolulu.
Feb. 24-27, 1986	4th Annual Cardiology Update, Straub Clinic & Hospital and The Institute for Medical Studies, Kim Stroich, The Institute for Medical Studies, 30131 Town Center Dr., Suite 215, Laguna Niguel, Calif. 92677, (714) 495-4499. Location: Honolulu.
Feb. 26-Mar. 2, 1986	Infectious Diseases, University of Michigan Medical School, Office of CME, The Towsley Center, P.O. Box 057, Ann Arbor, Mich. 48109-0010. Location: Kauai.
Feb. 26-Mar. 5, 1986	Review and Update: General Pediatrics and Family Practice, University of Nebraska Medical Center, Center for Continuing Education, 42nd & Dewey Ave., Omaha, Neb. 68105, (402) 559-4152, Contact: Marge Adey. Location: Sheraton Royal Waikoloa, South Kohala, Big Island.
Feb. 27-Mar. 1, 1986	Advances in Clinical Infectious Diseases: Update 1986, Office of Continuing Medical Education, The University of Michigan Medical School, Towsley Center, P.O. Box 057, Ann Arbor, Mich. 48109-0010, (313) 763-1400, Contact: Dove Margenau. Location: Sheraton Coconut Beach, Kauai.
Feb. 27-Mar. 2, 1986	The Fourth Annual Controversies in Obstetrics and Gynecology, Assistant Director, MMC-UCI Center for Health Education, Memorial Medical Center of Long Beach, 2801 Atlantic Ave., (P.O. Box 1428), Long Beach, Calif. 90801, (213) 595-3811. Location: Royal Lahaina, Maui.
Mar. 3-7, 1986	Critical Care Seminar, William L. Nietz, Division of Education, Mayo Clinic, Rochester, Minn. 55905, (507) 284—2085. Location: Turtle Bay Hilton, Oahu.
Mar. 5-12, 1986	Review and Update: General Pediatrics and Family Practice, University of Nebraska Medical Center, Center for Continuing Education, 42nd & Dewey Ave., Omaha, Neb. 68105, (402) 559-4152, Contact: Marge Adey. Location: Royal Lahaina, Maui.
Mar. 8-15, 1986	Pain Mechanism and Management, Extended Programs in Medical Education, University of California, Room U-569, San Francisco, Calif. 94143, (415) 666-4251. Location: Maui.
Mar. 8-15, 1986	Fourth Annual Topics in Internal Medicine for Primary Care Physicians, Continuing Medical Education, The University of Colorado School of Medicine, 4200 East Ninth Ave., C-295, Denver, Colo. 80262, (303) 394-5195. Location: Kauai.
Mar. 12-16, 1986	Advanced Psychiatric Updates, Continuing Medical Education, Inc., 2030 East Fourth, Santa Ana, Calif. 92705. Location: Sheraton-Waikiki Hotel.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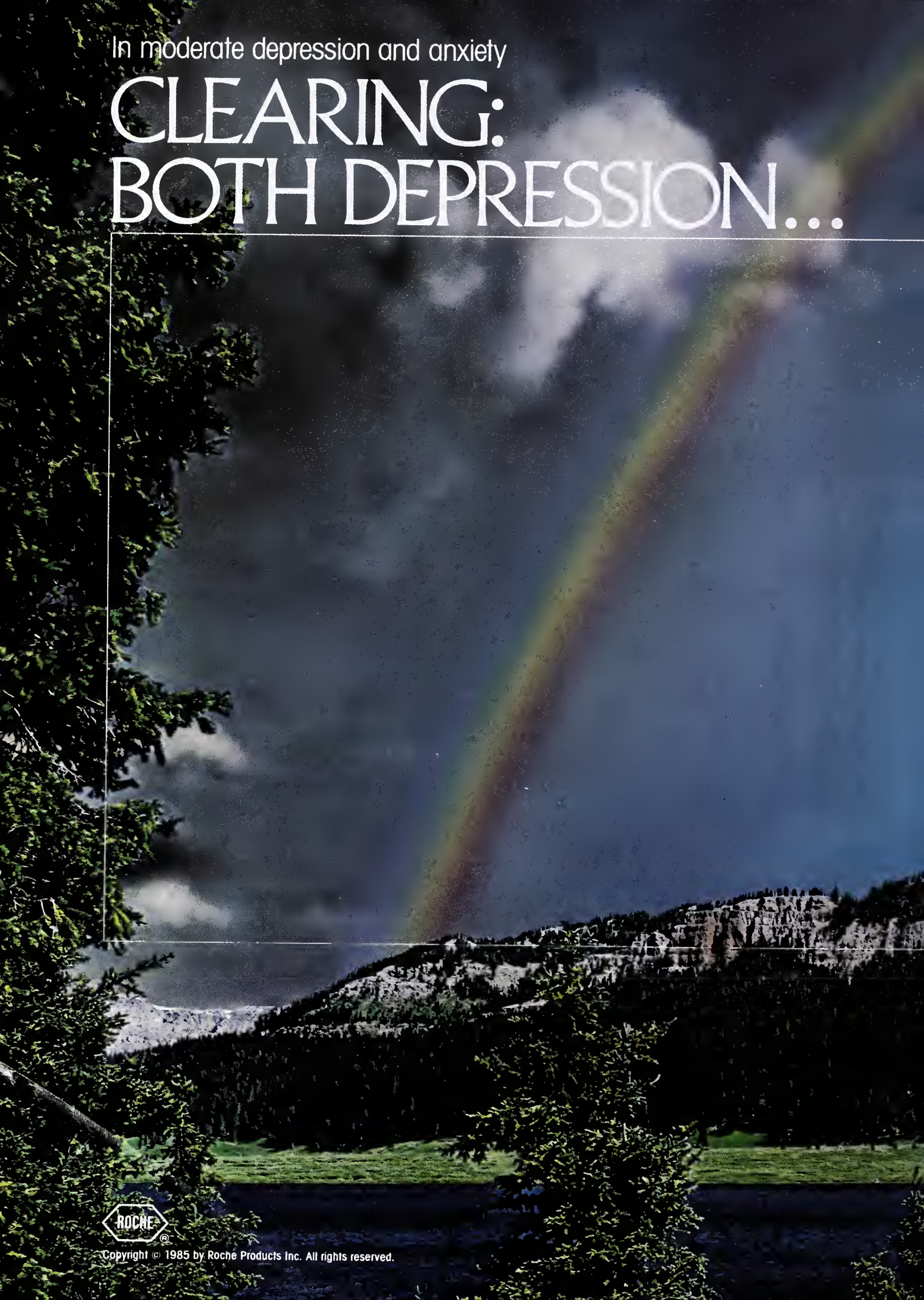

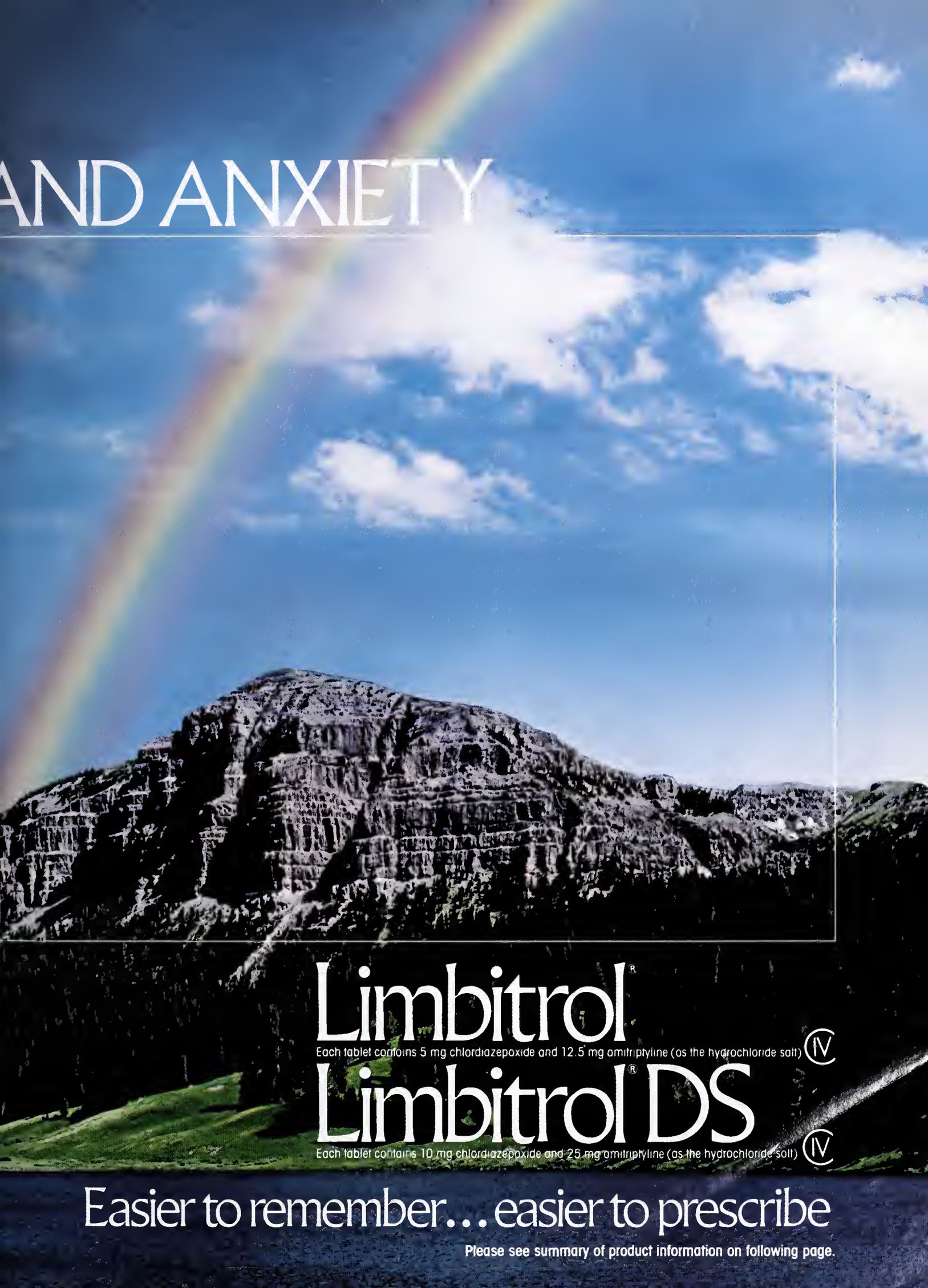
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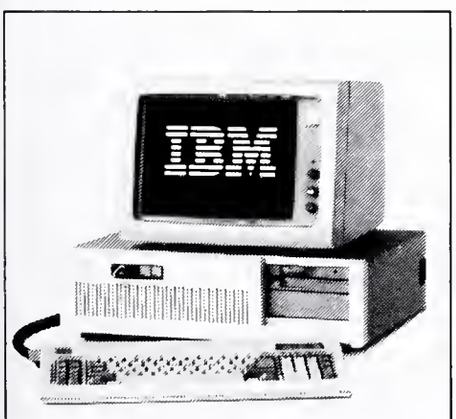

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Editorials

This Is My Mana'o

The advent of the holiday season each year makes for disruption of the normal course of events. Not that this is unwelcome, but it does throw things out of gear. At HMA, remarkably, the engine stays running smoothly, mostly, nevertheless.

There was no Council meeting in December 1985, but HMA President Russell Stodd had a full agenda to contend with on Nov. 8 and Jan. 3.

The report on the annual meeting in Kona gave us something to be proud of. The count was 456 and this did not include the exhibitors. HMA member physicians numbered 217, which is 50 more than the number at the Kauai meeting in 1984. What is even more remarkable, and a credit to our staff, is that the Kona meeting came out $3,348.43 in the black! Outer-island HMA meetings, attendance-wise, pose a challenge to Oahuans because the 1986 HMA annual meeting will take place Oct. 10 through 12 at the Westin Ilikai in Waikiki.

HMA is gearing up to go to bat for tort reform at the 1986 session of the state Legislature with HMA's long-established Legislative Committee under the able chairmanship of Charles H. Yamashiro, MD, and an HMA Task Force headed by Immediate Past President William Hindle, MD. Former legislator Charles Ushijima has been retained as tort reform lobbyist for HMA. At the Jan. 3 meeting, the council welcomed and approved the inclusion on the team of Dick Lundborg, MD, as lobbyist to serve HMA in any way most helpful to the legislative effort. Lundborg has taken a year off from being an anesthesiologist on the Big Island just to offer his services to HMA in the battle for tort reform. The council approved giving the physician-lobbyist a limited expense account.

HMA has received some $20,000 from members toward this legislative effort. Members should realize, however, that the greater impact on the legislative process always comes from personal appearance and one-to-one talk. Legislators are not likely to be persuaded as to the gravity of the problem if only a few physicians "make the wheel squeak"! No matter how eloquent the lobbyist may be, his or her efforts will not carry the day if there is "apparently" no backing of the effort by a show of concerned bodies.

The AMA Opinions Survey 1985, of patient assessment of physicians, indicated that less than 50% of responders think "doctors get involved in their communities," i.e., show interest in anything other than their profession and their play!

HMA's Malpractice Survey (announced in the December HMA Newsletter mailed to *all* physicians — 2,131 practicing doctors in the state) got a 34% response, which is considered unusually good, they say, but we wonder how many of the 733 respondents will actually show at the legislative hearings. And, what about the other 1,398? Do those doctors not care how much MMPI rates are likely to go up?

HMA is maintaining liaison with a separate, community-wide and business-wide task force that is on a parellel course in dealing with the Legislature.

Perinatal Transmission of Hepatitis B

Chris Nevin-Woods, Doctor of Osteopathy with the Epidemiology Branch of the State Department of Health, reported on perinatal transmission of Hepatitis B in Hawaii in the October 1985 issue of The Green Sheet Communicable Disease Report from the Epidemiology Branch of the state Department of Health, a publication that goes to all practicing physicians in the state.

Recommendations for interrupting the carrier state are spelled out. However, it is important for physicians, in particular, to know that the state of Hawaii is funding this program, and that the expense of the protective vaccine and immunizing IG will not fall on the individual patient.

A search has revealed that the 0.5 ml of HBIG given to the infant intramuscularly within the first 12 hours after birth costs about $10 for a 10 ml vial with a shelf life of about a year. That is very reasonable; however, the three doses of vaccine to be given the infant the first six months of life cost about $104. None of this includes the cost of doing the administering.

Physicians should note that the above applies *only* to gravid mothers, *all* of whom should be screened for HBsAg prenatally, and only those infants born of "positive" mothers would qualify for this "free" service.

Otherwise, for non-DSSH participants the cost of prenatal screening is about $15 (lab charge), plus a $5 venesection charge.

HMSA does not cover the cost of the vaccine unless the subscriber has a medical plan that covers drug costs, so all mothers testing positive can take advantage of the state offering that was mandated by the Legislature.

The 'Missing Link'

Plaintiffs' attorneys make much of the argument that the "patient truly injured by medical malpractice" would be denied justice and appropriate compensation if proposed tort reform did away with the tortfeasor (joint and several liability) provision in the law and reduced or eliminated the contingency fee system we have in the United States (Canada and the United Kingdom do not allow such).

The American Medical Association and the Hawaii Medical Association both include the above two items in organized medicine's platform for tort reform, besides the following:

1. **Structured settlements,** with periodic payments over an injured claimant's lifetime.
2. **Elimination of the collateral source rule.**
3. **Establishing fair and appropriate standards for expert witnesses.**
4. **Limiting non-economic damages** (the proposed ceiling being $250,000).
5. **A more fair statute of limitations** in the case of minors.
6. **Improve, strengthen or establish a risk-management program** for doctors and hospitals, including the right and capacity to discipline effectively.
7. **Screen through medical claims conciliation panels.**
8. **Allow for settlements by arbitration or by referee.**

What's missing is a positive plan to assure that the truly injured claimant is compensated. The figure bandied about is that the injured patient gets an average of 28 cents of the premium dollar or 50 cents of the cost-of-litigation dollar.

Neither the American Medical Association nor the Hawaii Medical Association has come up with a financial plan — something positive — as a proposal that would pull the rug out from beneath the feet of the plaintiffs' attorneys and might convince the legislative bodies to see the rest of the tort reform our way.

Surely there must be financial wizards around who could solve this kernel of the problem! Neither "no-fault" nor "workers' comp" insurance is an acceptable model. We propose something like "airplane trip insurance," the cost shared equally at the time of purchase by physician and patient.

J.I. Frederick Reppun, MD
Editor

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Male Infertility: The Sperm Penetration Assay

Douglas W. Soderdahl, MD, F.A.C.S.*
B. Jane Rogers, Ph.D.**

Whereas standard semen analysis (SA) correlates poorly with fertility potential, the interspecies sperm penetration assay (SPA, 'humster' test) demonstrates positive correlation of statistical significance ($p = 0.0001$) in a study of 115 men. In those men whose SPA did not correlate with fertility status, there was a false positive rate (specificity) of 2% and a false negative rate (sensitivity) of 18%.

The SPA is most helpful in that cohort of men in an infertile relationship whose test result is positive, and least useful in clinically infertile men whose conventional SA is abnormal.

Apart from the fact of ensuing pregnancy, no satisfactory test of male fertility exists. Even though van Leeuwenhoek first identified sperm microscopically 300 years ago, it remained for MacLeod to define "normal" semen parameters in his classic studies of fertile and infertile men in the early 1950s.[1] However, extensive studies of standard semen parameters — volume, sperm concentration, motility and morphology — fail to demonstrate precisely either indisputable seminal adequacy or the nature of a presumed deficiency in the male factor. To be sure, azoospermia precludes fertility. Beyond this truism, however, investigators disagree concerning the relevance of standard semen analysis (SA) in the evaluation of the infertile male. Probably, fertility requires a critical sperm density. Additionally, now it appears that sperm quality may correlate more closely with fertilization potential than sperm quantity. Recent work in this area shows clearly that the microscopic description of sperm characteristics does not accurately define sperm function. Experience with a recent development in male fertility evaluation, the sperm penetration assay (SPA), holds promise as a measure of the final event of sperm function: Fertilization.

Because of significant ethical and logistical problems involved in the study of human sperm interaction with human eggs *in vitro,* the discovery by Yanagimachi of cross-species sperm-egg interaction led to an alternative assay system for spermatozoal function, i.e. human sperm and zona pellucida-free hamster eggs (the "humster" test).[2] In our laboratory we demonstrated more accurate discrimination between fertile and infertile groups with this assay than with standard SA.[3] We consider SA normal if sperm concentration exceeds 20 million/ml, progressive motility is observed in 50% or more sperm and if at least 45% of sperm appear morphologically normal. Many other investigators confirm this assay's high correlation with demonstrated fertility or probable infertility.[4-16] The major clinical applications of the SPA are derived from and discussed in this paper.

Methods

Superovulation of adult golden female hamsters (eight to 12 weeks) is induced by intraperitoneal injection of pregnant mare's serum on day 1, followed on day 3 by human chorionic gonadotropin (hCG). After sacrifice of animals on day 4, cumulus clots are retrieved from the oviducts, and treated with hyaluronidase to disperse the cumulus cells and with trypsin to remove the zona pellucida. The zona-free ova are suspended in the Krebs-Ringer solution modified by Biggers, Whitten and Whittingham (BWW)[17] and supplemented with bovine serum albumin.

Semen samples are collected by masturbation after 48 hours' sexual abstinence, washed in BWW three times, resuspended in BWW at a concentration $1x10^7$ sperm/ml and incubated in air at 37°C for 18 to 20 hours.

Twenty to 25 eggs are added to each 0.1 ml aliquot of preincubated semen, incubated in air for two to three hours at 37°C and examined by phase-contrast microscopy. (See Figure 1.) Generally, 50 eggs are examined. The presence of a swollen sperm head or male pronucleus connected to a visible sperm tail within

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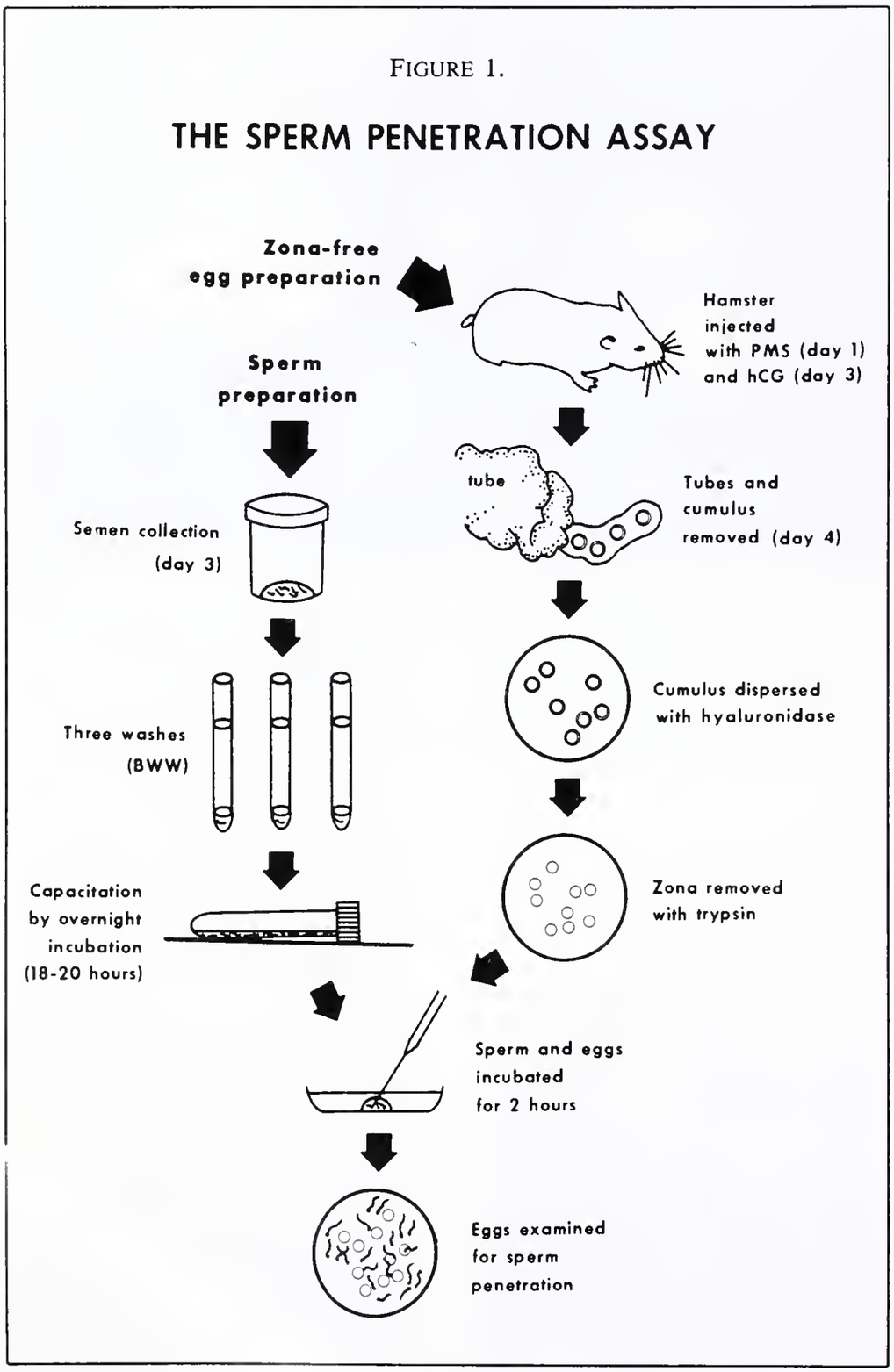
the cytoplasm indicates a positive assay. (See Figure 2.)

We have found the following variables to be critical in methodology: Sperm source, sperm preparation, sperm concentration, incubation time, incubation volume and container, preincubation time, condition of eggs, natural fluids or components present, insemination conditions and period of time sperm and egg are in contact.[18]

$$\% \text{ penetration} = \frac{\text{number of eggs penetrated}}{\text{number of eggs incubated}} \times 100$$

$$\text{Penetration index} = \frac{\text{number of swollen sperm heads}}{\text{number of eggs incubated}}$$

FIGURE 1.



Results

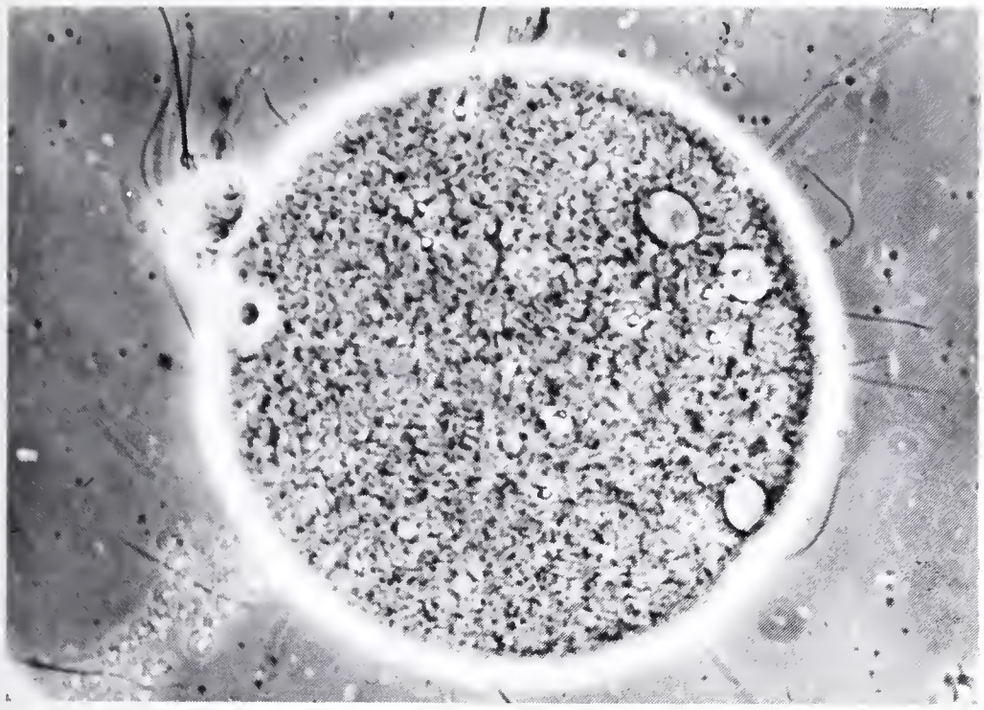
We consider a male to be fertile (Group A) if he claims paternity, and infertile (Group B) if married to a woman who demonstrates a normal, current gynecologic evaluation but who failed to achieve pregnancy after one year of appropriate exposure and who was previously made pregnant by another partner. We define fertile and infertile ranges empirically. As a result of our early experience we defined the fertile range for the SPA as 10% or more of ova penetrated, the infertile range less than 10%.[3] However, having evaluated more than 1,250 assays, we now feel than any individual male whose sperm can penetrate at any level is potentially fertile, but that correlation with clinical fertility status is superior if we employ our original definition of normality. High reproducibility for a given individual is noteworthy, providing that all variables are controlled carefully.[19]

Since this assay is not standardized for incubation time (neither sperm capacitation nor sperm-egg interaction) nor for protein concentration in the incubation medium, interlaboratory comparison of data is difficult.

Through June 1983, 1,286 assays have been performed on 892 men. Group A included 62 men, Group B 53 men. In this assessment of the practical application of the SPA we excluded individuals whose clinical fertility status is indeterminate. Table 1 demonstrates no significant discordance of average conventional semen parameters between clinically fertile and clinically infertile men. On the other hand, penetration rates are significantly discriminating. ($p < 0.001$)

Thirty-two percent of clinically fertile men (Group A) showed at least one abnormality on standard SA (false negative), while 30% of clinically infertile men (Group B) had a normal SA (false positive). Analysis of individuals whose SPA result did not correlate with clinical fertility status discloses a false negative rate (sensitivity) of 18% and a false positive rate (specificity) of 2%. (See Table 2.) Of the 11 patients testing false negative on SPA, three had sperm concentrations less than 20 million/ml and three had increased numbers of white blood cells (greater than 10 million/ml) in the semen sample tested. One patient's sample showed both low sperm concentration and increased white blood cells. Obviously, low sperm concentrations raise questions concerning history of paternity, and we have demonstrated previously clear inhibition of sperm penetration rates in samples with large numbers of white blood cells.[20] If we exclude these seven men, the false negative rate drops to 6.5%. Further, improper sexual abstinence and technical error may contribute to a false negative

FIGURE 2.

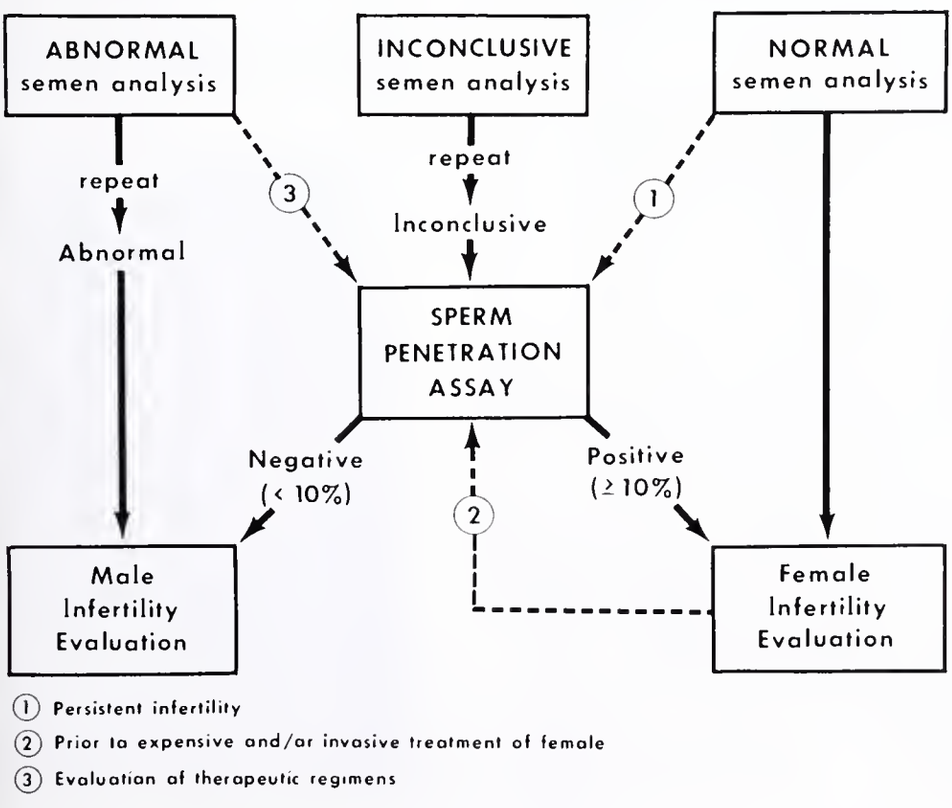


result.

We conclude that the SPA is clearly superior to conventional SA as a predictor of clinical fertility status. Additionally, we note that clinically fertile men may test negative on SPA (false negative), but that clinically infertile men seldom test positive. That is, a positive SPA more likely correlates with fertility potential than a negative assay.

Further, we found that a normal standard SA correlates poorly with SPA results regardless of clinical fertility status. On the other hand, an abnormal SA is a highly significant predictor of a negative SPA in clinically infertile patients. In fact, in no case in our experience has a clinically infertile male with abnormal SA produced a positive SPA. (See Table 3.) We infer that SPA is least useful in clinically infertile men with abnormal standard SA. However, we feel that SPA should still be performed in this group because of therapeutic and prognostic considerations discussed in detail later with reference to our varicocele data.

FIGURE 3.



Discussion

The expensive SPA ($150-325) has not completely replaced the standard SA in our evaluation of the infertile couple. (See Figure 3.) If repeated routine SAs are neither clearly normal nor abnormal, we perform a SPA, referring the male or female for further evaluation according to results. If routine SA is normal, we initiate the evaluation for a female factor. If that evaluation uncovers no abnormality and infertility persists, or if expensive or invasive therapy for the female is planned, the SPA is done. Because of the comparatively low sensitivity of standard SA, we not infrequently discover a male factor, using the SPA. On the other hand, because of the high concordance between an abnormal standard SA and an infertile range SPA in the clinically infertile male, we recommend proceeding directly to further evaluation and/or therapy of the male factor in the patient whose standard SA is subnormal, bearing in mind the caveat mentioned at the end of the last paragraph.

Monitoring of treatment of the male factor is possible using the SPA.[21, 22] For instance, in 194 men presenting to an infertility clinic with varicocele, of whom 59 elected to undergo repair of varicocele, we found that pregnancy (n = 7) occurred when the SPA improved and moved into the fertile range postoperatively (n = 14). Of these 14 men showing improvement into the fertile range, three are single, one is separated from his female partner and one is married to a woman with endometriosis.

Hence, seven of the nine men who had a reasonable opportunity to do so impregnated their partners. Of note are two men who presented with 0% penetration, improved to a normal SPA range postoperatively and achieved impregnation.

In the subset of 44 men who demonstrated no improvement postoperatively, only two achieved an impregnation. In one of these patients, the SPA was normal preoperatively, suggesting that the varicocele may not have been contributing to subfertility in his marriage. In the other patient, standard SA was abnormal (sperm concentration 50,000/ml, 35% motile, 36% normal forms); the SPA could not be performed because of the low sperm concentration but a pregnancy was initiated less than two months following surgery. For reasons that appeared later, we doubt the patient's claim to paternity.

Owing to the uncommon occurrence

of a false positive SPA (2%), and because of these impressive pregnancy data strongly correlating with a positive SPA following varicocele repair, we feel that it is inappropriate to recommend surgery in those patients with varicocele in an infertile marriage whose SPA result is positive (54 of 194 or 27.8% of our patients). Further, if the SPA improves to normal postoperatively, and if pregnancy is not achieved, we recommend exhaustive evaluation for a female factor causing the infertile union. Finally, we speculate that if the SPA does not improve following varicocele repair, surgery was incomplete, irreversible damage to spermatogenic cells had already occurred, or that the varicocele was not the cause of infertility. Again, in the unimproved group after varicocele repair, prognosis for eventual pregnancy is extremely poor.

High sensitivity and specificity support application of the SPA in the following circumstances: Males exposed to diethylstilbestrol while *in utero,* couples with high-titer antisperm antibody, individuals exposed to toxic influences (including environmental and chemotherapeutic agents and radiation), potential sperm donors for artificial insemination, and the investigation of male contraceptives.

It needs to be stressed that the SPA does not faithfully reproduce *in vivo* conditions. Specifically, sperm concentration is adjusted; sperm migration within the female genital tract is not assessed; the barriers of cumulus and zona pellucida are removed. It is unlikely, however, that sperm will fertilize an ovum *in vivo* if the sperm entry test is negative. On the other hand, a positive SPA does not guarantee successful *in vivo* fertilization.

We conclude that whereas standard SA correlates poorly with fertility potential, the SPA shows positive correlation of statistical significance. Measurement of conventional semen parameters most likely assesses best the ability of sperm to migrate to the site of fertilization. The SPA indicates spermatozoal capacity to complete the final stages of fertilization. Hence, this interspecies *in vitro* assay enhances the evaluation of a male factor in the infertile couple. The SPA is most helpful in that cohort of men in an infertile relationship when the result is positive. The SPA is least useful in men in an infertile relationship whose standard SA is abnormal.

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Welcome, Ray Higa

Another "new" person at Hawaii Medical Association is Ray Higa, 34, who has the title of Director of Research, and Assistant to Becky Kendro; he is also the man-for-all-jobs at HMA.

Higa has a degree in law as of 1983 from the Lewis and Clark School of Law in Portland, Oregon.

He is a Sansei. He was born in the old Puunene Hospital on Maui. His father is a retired carpenter. His mother is an RN who worked initially at the Puunene Hospital, next at Maui Memorial, and then at Queen's Medical Center from 1965 to 1983. She is now employed at SurgiCare of Hawaii, located at the Rehabilitation Hospital of the Pacific.

Higa graduated from Maryknoll High School in 1969 and went on to the University of Hawaii, where he acquired a bachelor's degree in education in 1974 and then a master's degree in public health in 1977.

He worked for a year at the Health and Community Services Council and then was hired by the state Department of Health, Mental Health Division, doing in-service education for the staff until 1980.

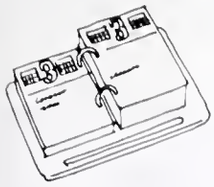
Realizing that so much of the work in government and in the health field entailed knowledge of the law, he decided to go to law school.

On his return from Oregon, he was again employed by Health and Community Services Council as a community services planner. That's where Becky Kendro, who sits on the Board of Directors, got to know him and finally prevailed on him to come to HMA.

What are Ray Higa's objectives in HMA? That's not a fair question to put to one who's just starting in a new job, but he answered it without much hesitation: "I'm interested in health and social service issues, particularly in the challenging issue of access to medical care by the people. I hope to be able to help make good medical care more accessible to all. I'm also maintaining involvement in the field of mental health; I'm a member of the Mental Health Advisory Council."

It promises to be good for HMA to have Ray Higa aboard.

J.I. Frederick Reppun, MD
Editor



Continuing Medical Education

CALENDAR OF ACCREDITED EVENTS — CATEGORY 1

Accredited programs of CME allow one unit of AMA credit for each hour of instruction excluding all "breaks." Asterisked programs also are accredited for AAFP prescribed credit.

LOCAL ACCREDITED PROGRAMS
ONGOING

American Cancer Society, Hawaii Pacific Division, Inc.

1. Melanoma and Other Skin Lesion Tumor Board, Fourth Tuesday, 12:30-1:30 p.m., Queen's University Tower, Room 504.
2. Windward Oncology Conference, Second Tuesday, 12:30-1:30 p.m., Castle Medical Center Auditorium. (For further information, call the ACS Windward Unit, 262-5124.)
3. "Castle Cases," Fourth Tuesday, 12:30-1:30 p.m., Castle Medical Center Auditorium. (For further information, call the ACS Windward Unit, 262-5124.)

John A. Burns School of Medicine

1. Department of Medicine
   - *A. Case Conferences, Second and Fourth Tuesdays, 12:30-2 p.m., Queen's University Tower, Room 618.
   - *B. Grand Rounds, First and Third Tuesdays, 12:30-2 p.m., Queen's University Tower, Room 618.
   - C. Endocrinology Grand Rounds, First Tuesday, 5:30-6:30 p.m., Queen's University Tower, Room 506.
   - D. UH-Queen's Conference, Every Friday, 8-9 a.m., Queen's Medical Center, Mabel Smyth Auditorium.
   - E. Cardiology Grand Rounds, Third Tuesday, 6:30-7:30 p.m., Queen's University Tower, Room 508.
   - F. Infectious Disease Grand Rounds, First and Third Thursdays, 5-6 p.m., Queen's Nalani 1 Conference Room.
   - G. Dermatology Grand Rounds, Second Wednesday, 7:30-9:30 a.m., Queen's Medical Center, Queen Emma Clinic.
   - H. Pulmonary Grand Rounds, Fourth Monday, 12:30-1:30 p.m., Queen's Medical Center, Kamehameha Lounge.
   - I. Nuclear Medicine Grand Rounds, Third Wednesday, 5-6:30 p.m., Straub Clinic & Hospital, Doctors' Dining Room.
   - J. Medical-Surgical GI Grand Rounds, Third Friday, 12:45-1:45 p.m., Kuakini Hospital, PB4 Classroom.
   - K. Rehabilitation Hospital of the Pacific Grand Rounds, First and Third Thursdays, 7:30-8:30 a.m., Rehab. Conference Room, First Floor.
2. Department of Obstetrics and Gynecology
   - *A. Grand Rounds, Wednesdays, 7:30-8:30 a.m., Kapiolani Women's and Children's Medical Center, Second Floor Auditorium.
   - B. Tuesday Conference, Tuesdays, 1-2 p.m., Kapiolani Women's and Children's Medical Center, Second Floor Auditorium.
3. Division of Orthopedics
   - A. Fracture Conference, Mondays, 5-6 p.m., Queen's University Tower, Room 618.

(Continued on page 70)

CALENDAR OF ACCREDITED EVENTS — CATEGORY 1

(Continued from page 69)

B. Shriner's Tuesday Conference, Tuesdays, 7:15-8:15 a.m., Shriners Children's Hospital, Auditorium.

4. Department of Pediatrics
   A. Grand Rounds, Thursdays, 8-9 a.m., Kapiolani Women's and Children's Medical Center, Second Floor Auditorium.
   B. Monday Noon Conference, 12:45-1:45 p.m., Kapiolani Women's and Children's Medical Center, Second Floor Auditorium.
   C. Pediatric Infectious Disease Conference, Thursdays, 12:30-1:30 p.m., Kapiolani Women's and Children's Medical Center, Third Floor Conference Room.
   D. Perinatal Grand Rounds, Fridays, 8:15-9:15 a.m., Kapiolani Women's and Children's Medical Center, Conference Room B.
5. Department of Psychiatry
   A. Grand Rounds, Fridays, 8-9:30 a.m., Queen's University Tower, Room 618.
6. Department of Surgery
   A. Grand Rounds, First, Second, and Third Saturdays, 7:30-9 a.m., rotating hospitals.
   B. Statistical M&M, Last Saturday, 7:30-9 a.m., rotating hospitals.
   C. Journal Club, First and Third Tuesdays, 6-8 p.m., Queen's University Tower, Room 620.
   D. Medical-Surgical GI Grand Rounds, Third Friday, 12:45-1:45 p.m., Kuakini Medical Center, PB4 Classroom.
   E. Pediatric Surgical Grand Rounds, First Friday, 12:45-1:45 p.m., Kapiolani Women's and Children's Medical Center, Conference Room B.
   F. Basic Science Lecture, Wednesdays, 7:15-8:15 a.m., Queen's University Tower, Room 618.
7. Department of Family Practice
   *A. Conference, Fourth Tuesday, 1-2 p.m., Kapiolani Women's and Children's Medical Center, Executive Dining Room.
8. Department of Pathology
   A. Neuropathology Conference, First Saturday, 8-9 a.m., St. Francis Hospital, Sullivan IV Classroom.

For further information on any of these programs, please call the Continuing Medical Education office at 948-6949.

Castle Medical Center

1. CME Programs, First and Third Tuesday, 12:30-1:30 p.m., Castle Medical Center's Auditorium. (For further information call the Medical Staff Office, 263-5360.)

Chart

1. CME Programs, Thursdays, 8-9 a.m. Topics and visiting professorships to be announced.

For further information, or to be placed on the mailing list, contact Comprehensive Health and Rehabilitation Training at 523-1674.

G.N. Wilcox Memorial Hospital

1. General Medical Staff Meeting, Quarterly in January, April, July, and October, 7:30 p.m., Hospital Conference Room.
2. Clinical Review, Mondays, Noon-2 p.m., Hospital Conference Room.
3. Physicians' Tumor Conference, First Thursday, Noon-2 p.m., Hospital Board Room.
4. Journal Club, First Friday, Noon-2 p.m., Hospital Board Room.

Hawaii Medical Association

1. HMA Maternal and Perinatal Mortality Study Committee, First Monday, 5:30 p.m., 320 Ward Ave., Suite 200, Cat. 1 on hr. for hr. basis. (Call 536-7702 to confirm meeting schedule.)

Hawaii Ophthalmological Society

1. Monthly Dinner Meeting, Third Thursday of each month (except July, August, and December), 6:30-9:30 p.m., The Pacific Club.

Hawaii Thoracic Society

1. April 1986 — Visiting Professorship Program Statewide, tentative speaker: Phil Gold, MD.
2. Sinclair Chest Club Quarterly Dinner Meetings, January, April, July, and October. Call Rosemary Respicio, BSU, at 537-5966 for dates and speakers.

Hilo Hospital

1. Radiology Conference, First Friday, 12:30-1:30 p.m., Doctor's Conference Room.
2. Tumor Conference, Second Friday, 12:30-1:30 p.m., Doctor's Conference Room.
3. Cardiology Conference/Clinical Department Update for Medical Staff, Third Friday, 12:30-1:30 p.m., Doctor's Conference Room.
4. Pathology Conference/Morbidity-Mortality Review, Fourth Friday, 12:30-1:30 p.m., Doctor's Conference Room.
5. Visiting Professor Program/Network for Continuing Medical Education Tapes (ETV), Saturdays, 7-8 a.m., Doctor's Conference Room.

For further information, call Administration at 961-4255.

Kaiser Foundation Hospital

1. Obstetrics/Pathology Conference, First Monday, Noon-1 p.m., Moanalua Conference Room C.D.
2. *Medicine Grand Rounds, Tuesdays, 8-9 a.m., Moanalua Auditorium.
3. Tumor Board, Tuesdays, Noon-1 p.m., Moanalua Auditorium.
4. Pathology Conference, Fridays, 7-8 a.m., Moanalua Auditorium.
5. Surgical Grand Rounds, Fridays, 8-9 a.m., Moanalua Auditorium.

*6. Saturday Educational Conference Saturdays, 7:30-9 a.m., Moanalua Auditorium. (Call CME Office at 834-9496 for more information.)

7. Family Practice Grand Rounds, Fourth Thursday, 7:45-8:45 a.m., Moanalua Conference Room B.
8. Obstetrics/Perinatal Conference, Last Tuesday, Noon-1 p.m., Moanalua Conference Room CD. (For further information call CME Office at 834-9496.)

Kona Hospital

1. Monthly CME Meeting, Third Friday, 7:30-8:30 a.m., Hospital Conference Room.
2. Grand Rounds/Tumor Board, First Friday, 7:30-8:30 a.m., Hospital Conference Room.

Kuakini Medical Center

1. Visiting Professor Lectures (ongoing).
2. Guest Lectures (ongoing).
3. Endocrine Conference, Second Monday, 12:30-1:30 p.m., Makai Conference Room.
4. Nephrology Conference, Third Monday, Noon-1 p.m., Makai Conference Room.
5. Department of Ophthalmology Meeting, First Tuesday, 12:30-1:30 p.m., Private Dining Room.
6. Medical Mortality and Morbidity Conference, Fourth Tuesday, 1-2 p.m., Hale Pulama Mau Auditorium.
7. Neurology Conference, First Wednesday, 12:30-1:30 p.m., Makai Conference Room.
8. G.I. Conference, Second Wednesday, 12:30-1:30 p.m., Makai Conference Room.
9. Infectious Disease Conference, Third Wednesday, 12:30-1:30 p.m., Makai Conference Room.
10. Oncology Conference, Thursdays, 7:30-8:30 a.m., PB-5 Conference Room.
11. Pulmonary Conference, Second Thursday, 1-2 p.m., Makai Conference Room.
12. Rheumatology Conference, Third Thursday, 12:30-1:30 p.m., Makai Conference Room.
13. Cardiology Conference, Fourth Thursday, 12:30-1:30 p.m., Makai Conference Room.
14. Surgical Conference, First Friday, 12:45-1:45 p.m., PB-5 Conference Room.
15. Surgical Trauma Conference, Second Friday, 12:45-1:45 p.m., PB-5 Conference Room.
16. Nutrition Conference, Fourth Friday, 12:30-1:30 p.m., Private Dining Room.
17. Surgical Mortality and Morbidity Conference, Fourth Friday, 12:45-1:45 p.m., PB-5 Conference Room.
18. Hematology Conference, Second Friday, 12:30-1:30 p.m., Makai Conference Room.

(Continued on page 76)

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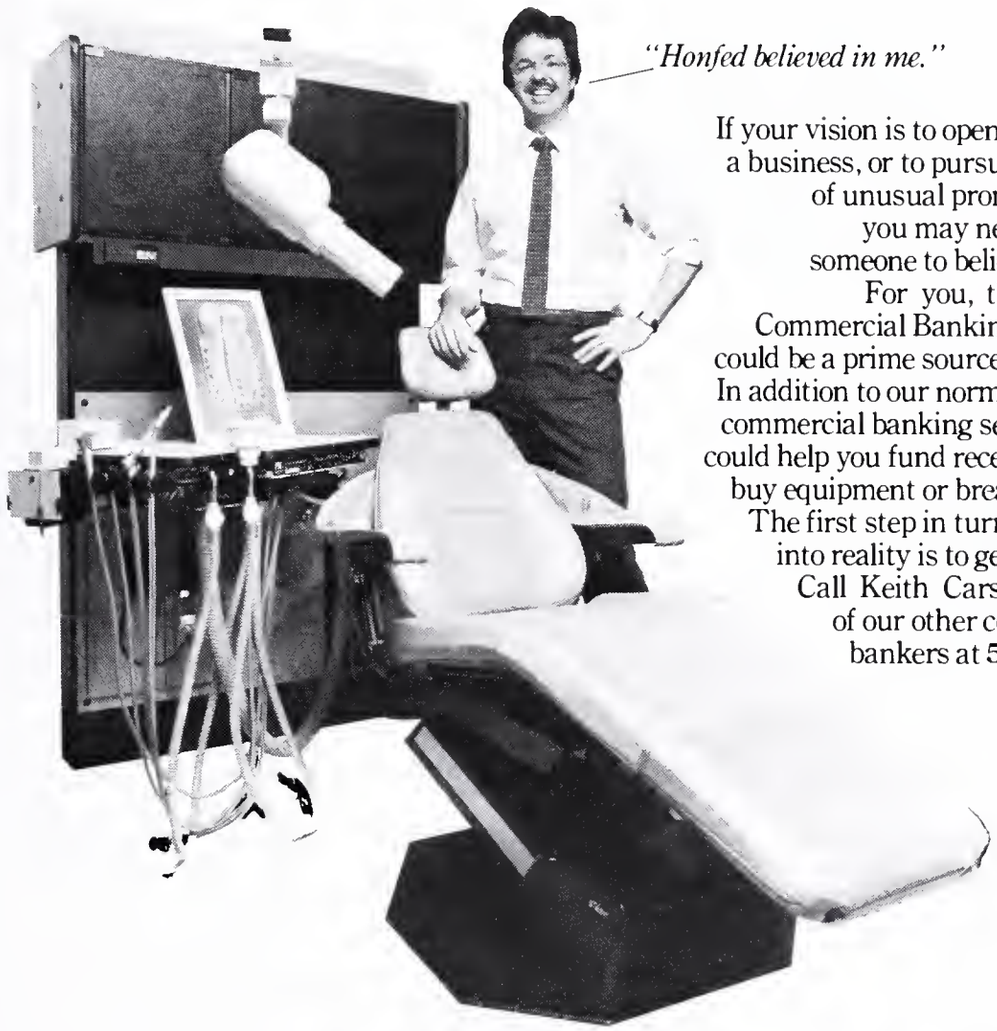

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Prevention of Postoperative Infections in Colon Surgery

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The IIIrd Department of Surgery, Toho University School of Medicine, Tokyo, Japan.

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We explored how the elemental diet (ED) in the form of a mechanical colon preparation affected the intestinal bacterial flora before surgery for colonic cancer. Rats were used for the experimental model and they were fed either pellet food or ED, with and without Kanamycin (KM) and Metronidazole (MTN).

Our results revealed ED was an effective mechanical colon preparation and, when used with KM and MTN, inhibited bacterial growth in the colon.

Introduction

Recognizing the importance of controlling coprastasis and bacteria flora in colon surgery, we tested two variables, using Wistar female rats: (1) The use of pellet food versus ED alone and with an artificially stenosed colon; (2) In combination with KM and MTN, in normal and stenosed colon.

Methods

The first group of female Wistar strain rats were fed either pellet food or ground ED as a control group and bacterial counts were obtained.

In another group of Wistar strain rats, a 4.0 millimeter (inside diameter) silicone tube was inserted into the transverse colon in order to simulate a stenosis of a moderate degree. This group of rats was then fed with either pellet food or ED for one week, then sacrificed, and samples of intestinal contents of 0.3 grams each were collected from the ileo-cecum aseptically, to be made into serial tenfold dilutions for aerobic and anerobic cultures; counts were then made.

In another group of female Wistar rats, 0.5 ml of KM (100 mg/ml solution) and 0.5 ml of MTN (20 mg/ml) was given orally, either alone or in combination, once a day for one week. This was tried on normal and stenosed rats.

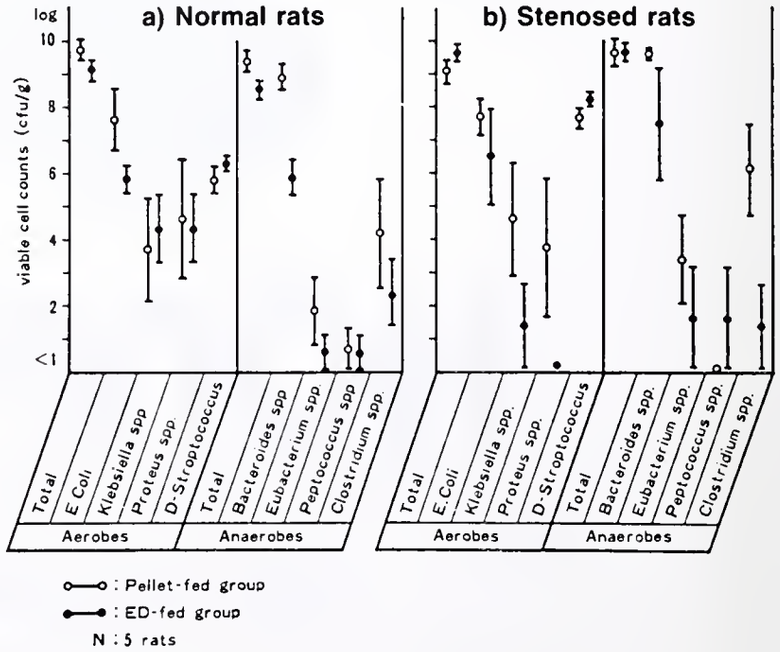
The four aerobes isolated and counted from each of the experimental group of five rats each were: (1) E. coli, (2) Klebsiella, (3) Proteus and (4) Streptococcus. The four anaerobes studied were: (1) Bacteroides, (2) Eubacterium, (3) Peptococcus and (4) Clostridium.

Results: Bacterial Flora Between Pellet-Fed and Ed-Fed Rats

The total counts of aerobes in the rats fed either pellet food or ED did not show any significant difference (5.1×10^9 cfu/g). The anaerobic total count averaged 2.4×10^9 cfu/g in the pellet group and 3.3×10^8 cfu/g in the ED group, showing a slightly lower total count in

FIGURE 1.

Comparison of Intestinal Bacteria Flora in Normal and Stenosed Rats



* Associate Professor
** Professor

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Tokyo, Japan

the latter group (1 x 10^9). Of particular interest in this comparison was a very large decrease in the count of the Bacteroides species between the pellet-fed group and the ED group (9 x 10^8 and 7.5 x 10^5 cfu/g, respectively). The two other anaerobes, Eubacterium and Peptococcus, also revealed a decrease in their counts. The fourth anaerobe, Clostridium, revealed a peculiar rise of 100 times among the pellet-fed rats as compared with the ED-fed rats.

Bacterial Flora in Colon-Stenosed Rats Among Pellet-Fed and Ed-Fed

Using stenosed-colon rats, the aerobic bacterial count among the ED-fed rats decreased sharply as compared with the non-stenosed rats. (See Figure 1b.) Klebsiella and Proteus fell to less than 10 cfu/g, but D-Streptococcus averaged 1.9 x 10^8 cfu/g, which was higher than in the non-stenosed group. There was a marked increase in the aerobic bacterial count in the stenosed ED-fed group (averaging 4.2 x 10^9 cfu/g) as compared with the normal non-stenosed group. This was due to a marked increase in the Bacteroides. However, Clostridium fell to less than 10 cfu/g, much below the normal non-stenosed group level.

Bacterial Flora in Normal Rats Using KM and/or MTN

The total bacterial counts of aerobes in the KM-medicated rats averaged 2.9 x 10^7 cfu/g for the pellet-fed group and 6 x 10^5 cfu/g for the ED-fed group. Both groups showed marked decrease from the corresponding non-medicated normal rats fed pellet and ED. (See Figures 2a and 2b.) E. coli, Klebsiella, and Proteus dropped notably to 10^4-10^5 cfu/g. Among the ED-fed group, all three strains dropped more sharply, to less than 10. D-Streptococcus, however, was found to be only slightly affected in both the pellet-fed and ED-fed groups. When comparing the anaerobic count of the pellet-fed group between the medicated and the non-medicated groups, there was no significant change. However, among the ED-fed group, there was a higher total count (8 x 10^8 cfu/g) because of the increase in the Bacteroides specie (averaging 7.2 x 10^8). Both Peptococcus and Clostridium in the pellet-fed and ED-fed groups decreased to less than 10.

In comparing the pellet-fed and ED-fed groups when MTN alone was given, the total count of aerobes was nearly equal to that of the non-medicated group. (See Figure 2b.) All anaerobes among the four species counted, however, revealed a decrease in their number, averaging 1.2 x 10^8 cfu/g for the pellet-fed groupand 1.4 x 10^3 cfu/g for the ED-fed group.

In comparing the pellet-fed and ED-fed groups given both KM and MTN in combination, all aerobes studied decreased markedly (except for D-Streptococcus)

FIGURE 2.

Changes in Intestinal Bacterial Flora of Normal Rats due to Administration of Kanamycin and Metronidazole, Alone or Combined

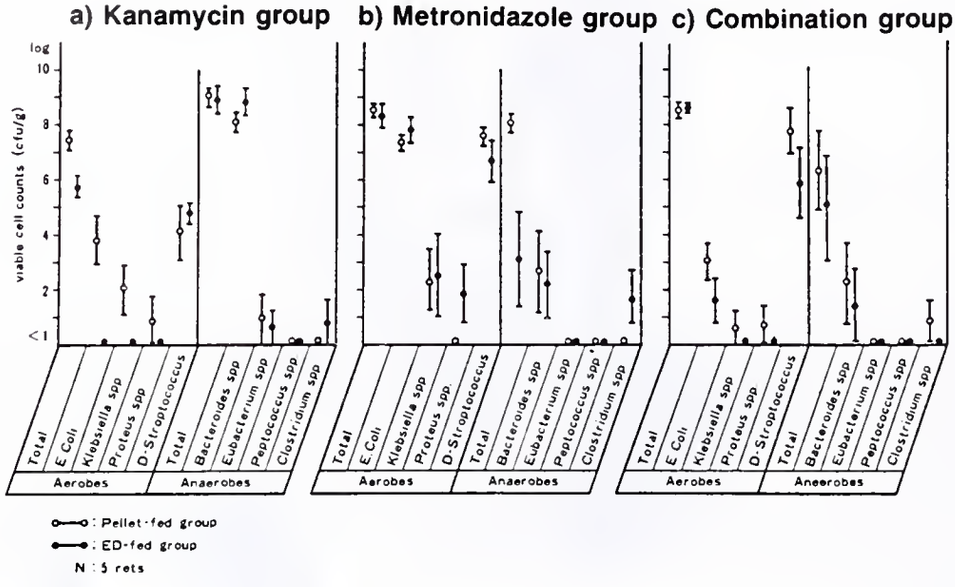
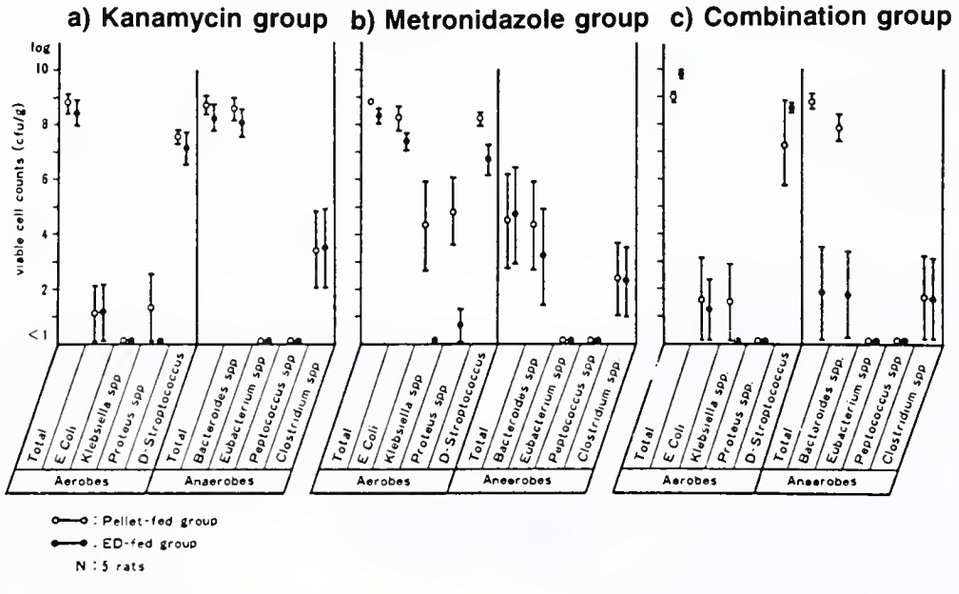


FIGURE 3.

Changes in Intestinal Bacterial Flora of Stenosed Rates due to Administration of Kanamycin and Metronidazole, Alone or Combined



averaging 6.3 x 10^7 cfu/g in the pellet-fed group and 7.2 x 10^5 cfu/g in the ED-fed group). (See Figure 2c.) The decreases were particularly marked in the ED-fed group. All anaerobe counts decreased in both the pellet-fed and ED-fed groups, with the most impressive drop being in Bacteroides in the ED-fed group as compared with the pellet-fed group. The other anaerobic strain counts fell sharply to less than 10.

Stenosed Rats Using KM and/or MTN

In this model of stenosed colon rats, both the pellet-fed and ED-fed groups were given KM alone; all strains of aerobes decreased markedly except for D-Streptococcus. (See Figure 3a.) Among the anaerobes, Bacteroides decreased slightly to 4 x 10^8 cfu/g and 1.2 x 10^8 cfu/g in the pellet-fed and ED-fed groups, respectively. However, Clostridium did not show any decrease. Eubacterium and Peptococcus dropped to less than 10.

In comparing the pellet-fed and ED-fed groups given MTN alone, there were practically no changes in the bacterial count of the aerobes as against the counts in the non-medicated, stenosed rats. (See Figure 3b). However, there were significant changes among the anaerobes, particularly the Bacteroides specie showing a decrease of 4 x 10^{6-7} among the pellet-fed group, and less than 10 in the ED-fed group. Eubacterium and Peptococcus counts were less than 10; Clostridium fell to less than 10.

When comparing the pellet-fed and ED-fed groups given both KM and MTN in combination, all aerobes (except for D-Streptococcus) decreased to less than 10, whereas all anaerobes also decreased sharply. (See Figure 3c.) Bacteroides in the pellet-fed group decreased only slightly, however.

Discussion

The prevention of postoperative infections attending colon surgery is tantamount to a successful outcome. The preoperative preparation of the patient definitely influences the outcome of the surgical procedure. Three areas of concern need to be addressed: (1) Repair of nutritional depletion, (2) reduction of coprostasis and (3) control of the number of viable bacterial flora in the large intestine. In dealing with colon cancer, where stenotic obstruction is frequently encountered leading to coprostasis, the use of an ED source for nutrition becomes advantageous over an ordinary diet, taking advantage of a very low residue in the use of such a diet.

As for the use of prophylactic antibiotics for the control of the aerobes and anaerobes in the colon, various drugs have been used in the past, ever since Garlock et al.[3] first used sulfa drugs in controlling wound infection. Poth[4] used Streptomycin and Sulfalidine par-

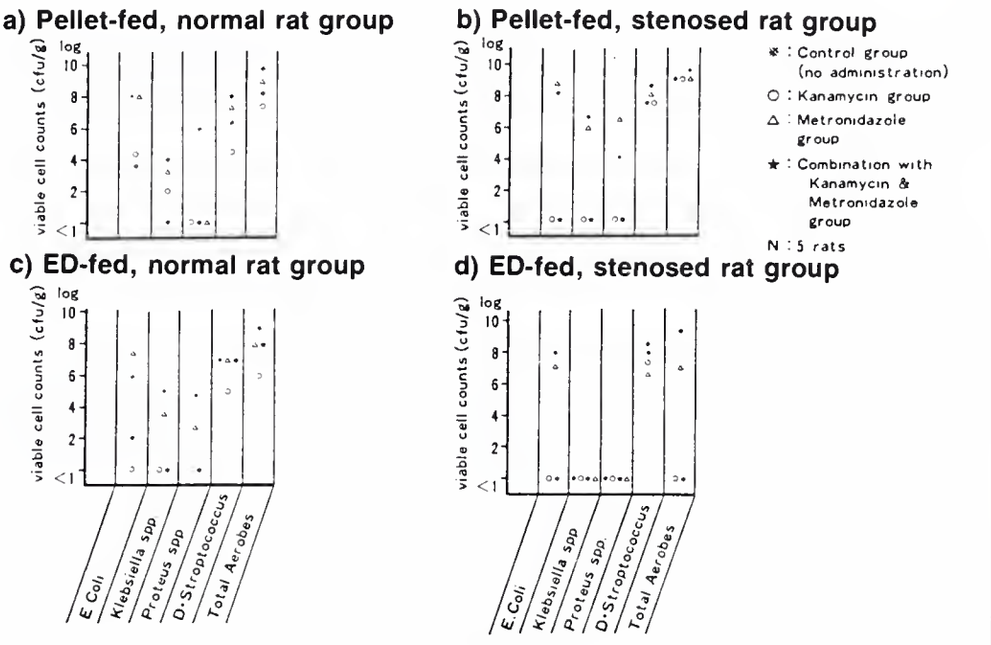
enterally for the control of pathogens other than anaerobes. Cohn[5] used KM for the same purpose. More recently, anaerobes, especially Bacteroides fragilis specie, have come to the fore as a significant pathogen of wound infection as well as in intra-abdominal abscesses.[6] The use of KM and MTN by Goldring[7] showed potent activity against anaerobes and aerobes, resulting in successful reduction of the incidence of postoperative infections. However, none of these reports discussed the exact effect of antibiotics on specific bacteriological species commonly found in intestinal flora. Our study specifically addressed those intestinal pathogens frequently held responsible for postoperative infections involving the colon. The combined use of KM and MTN in definitely decreased aerobic and anaerobic growth, except for D-Streptococcus, and this change was more marked in the ED-fed groups than in the pellet-fed ones. A distinct difference was noted in the D-Streptococcus count between our findings and those reported by Okamura.[8] The D-Streptococcus strains isolated showed MICs of more than 100 ug/ml to both KM and MTN, and were thus resistant. Thus, the use of an ED and combination KM and MTN prior to surgery of the large intestine can be expected to be clinically effective in preventing postoperative infections.

In discussing the role of an ED diet, particularly in a situation where colonic obstruction existed, there was a marked decrease in the bacterial count of the aerobes (Klebsiella and Proteus — see Figure IV). The use of KM in combination with MTN definitely decreased the bacterial count of E. coli, Klebsiella, and Proteus, but D-Streptococcus counts remained virtually unchanged. The use of MTN alone did not affect the aerobes at all.

Among the anaerobes, Bacteroides, Eubacterium, and Clostridium decreased

FIGURE 4.

Changes in Intestinal Aerobic Bacterial Counts in Normal and Stenosed Rats due to Administration of Antibiotics.



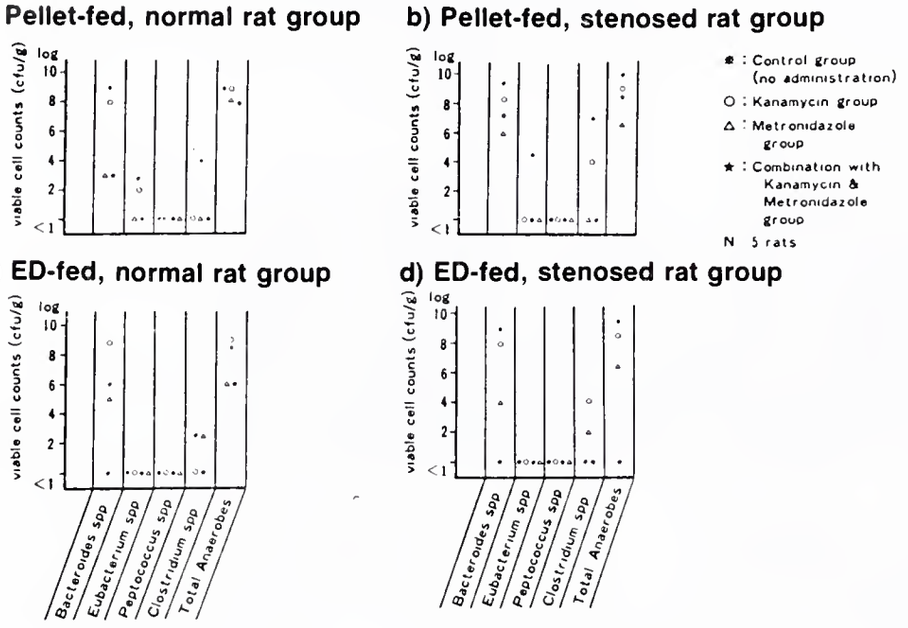
more markedly in the ED-fed group as compared to the pellet-fed group not on antibiotics. However, the use of MTN in both the pellet-fed and ED-fed groups resulted in a decrease in bacterial counts. Optimum decrease in both aerobic and anaerobic bacterial counts was more notable in the ED group given KM and MTN in combination.

Conclusion

In our experiment with rats, and also in clinical trials previously reported, we found ED to be a mechanical colon preparation most suitable for nutritional repletion, decreasing coprostasis and decreasing the number of viable bacteria.[1,2] In colonic cancer associated with stenosis leading to coprostasis, ED was thought to be extremely advantageous over the ordinary diet, resulting in a very low residue in the colon. For prophylaxis of infection, KM and MTN are effective in suppressing the bacterial counts of aerobes and anaerobes. When ED was used with KM and MTN, an optimum situation was achieved in controlling coprostasis and antisepsis.

FIGURE 5.

Changes in Intestinal Anaerobic Counts in Normal and Stenosed Rats due to Administration of Antibiotics.



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2. Sumiyama Y, Nagao J, Tsurumi K: Colon preparation of elemental diet for the colonic model of circular stenosis type. *J of Large Intest and Anus* 36:22-27, 1983.
3. Garlock JH, Seley GP: The use of sulfamide in surgery of the colon and rectum, Preliminary report. *Surgery:* 5:587-794, 1945.
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6. Murayama N, Aikawa N, Baba S, Ishibiki K, Abe R: Postoperative infection in colonic surgery and pretreatment with antibiotics. *Chemotherapy:* 23:3,798-3,805, 1975.
7. Goldring J, Scott A, McHanght W: Prophylactic oral atimicrobial agents in elective colon surgery. *Lancet II:* 997-999, 1975.
8. Okamura T, Inoue T, Takamura K, Maruyama H, Sato I, Mishima Y: Study on prophylaxis with antibiotics for colonic surgery. *J of Large Intest and Anus:* 37:267-272, 1984.

Continuing Medical Education

(Continued from page 70)

Maui Memorial Hospital

1. Department of Medicine, First Thursday, 7-8 a.m., Auditorium.
2. Department of Surgery, Second Thursday, 7-8 a.m., Auditorium.
3. Department of Obstetrics & Gynecology, Third Thursday, 7-8 a.m., Auditorium.
4. Department of Pediatrics, Fourth Thursday, 7-8 a.m., Auditorium.
5. Fifth Thursday Meeting: 7-8 a.m., Auditorium.
6. Tumor Board Conference; Second Friday and Fourth Wednesday, 7-8 a.m., Multi-Purpose Room.
7. Anesthesia Conference, Second Wednesday, 7-8 a.m., Dining Room.

The Queen's Medical Center

1. QMC Cardiology Rounds, Wednesdays, 9-10 a.m., Kam Auditorium.
2. Emergency Medicine Conference, First Monday, 7-8 a.m., Nalani I Conference Room.
3. ENT Conference, First and Second Fridays, 7:30-8:30 a.m., Harkness Room 139.
4. QMC-UH Medical Conference, Fridays, 8-9 a.m., Mabel Smyth Auditorium.
5. MICU Lecture, Tuesdays and Thursdays, 9-10 a.m., Pauahi 6.
6. OB/GYN Conference, Mondays, 1-2 p.m., Kam Auditorium.
7. Ophthalmology Conference, Fourth Tuesday, 4:45-6 p.m., Queen Emma Eye Clinic.
8. Orthopaedic Conference, Wednesdays, 7-8 a.m., Kam Auditorium.
9. Pathology Conference, Wednesdays, 7-8 a.m., Ultrasound Conference Room.
10. Pediatrics Conference, Fourth Thursday, 12:30-1:20 p.m., Harkness Board Room.
11. Psychiatry Conference, Fourth Tuesday, 7:30-8:30 a.m., Kekela Gym.
12. Surgical Conference, Tuesdays, 4:30-5:30 p.m., Kam Auditorium.
13. Tumor Board Conference, Tuesdays, 7:30-8:30 a.m., Kam Auditorium.

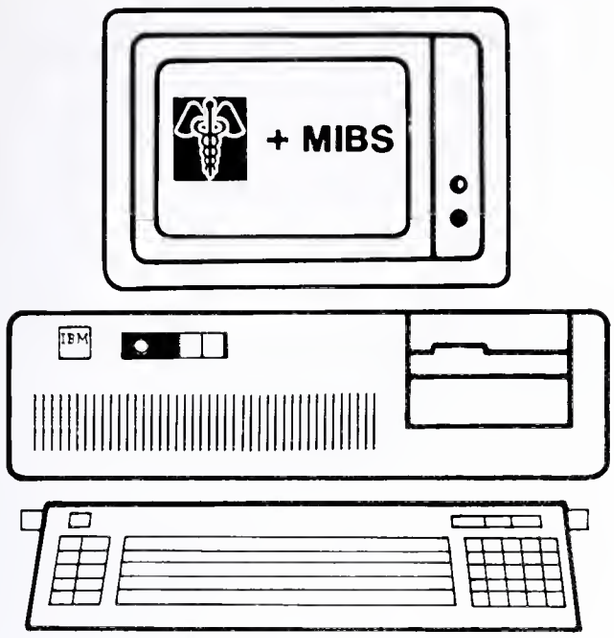
St. Francis Hospital

1. Oncology Conference, Mondays, 7:30-8:30 a.m., Sullivan IV Classroom.
2. EENT Meeting, First Tuesday, 7:30-8:30 a.m., Sullivan IV Classroom.
3. Surgery Grand Rounds, First, Second, and Third Fridays, 7:30-8:30 a.m., Sullivan IV Classroom.
4. Medicine Morbidity and Mortality Conference, Second Tuesday, 7:30-8:30 a.m., Auditorium (for SFH staff members only).
5. Hematology Conference, Third Thursday, 12:30-1:30 p.m., Sullivan IV Classroom.
6. Visiting Professor Programs (contact Medical Education Office at 547-6497 for further information).

Straub Clinic & Hospital

1. Friday Noon Conference, Fridays, 12:30-1:30 p.m., Doctors' Dining Room.
2. Patient Care Conference, Second Tuesday, 5-6 p.m., Doctors' Dining Room.
3. Cardiac Surgery Conference, Fourth Tuesday, 4:30-5:30 p.m., Doctors' Dining Room.
4. Neuropathology Conference, Fourth Saturday, 8-9 a.m., Doctors' Dining Room.
5. Surgical Morbidity and Mortality Conference, Fourth Thursday, 7-8 a.m., Doctors' Dining Room.
6. Visiting Professor Conference, periodically on Thursday, 7-8 a.m., Doctors' Dining Room. (For further information call the Office of Professional Activities, 523-2311, ext. 8152.)

(Continued on page 84)



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Assessing a service charge improves the collection rate. Many patients pay their accounts earlier to avoid a service charge.

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AIDS, Learning Together

An intensive one-day conference presenting the most up-to-date information on AIDS, and the treatment of it, is scheduled for 7 a.m. to 5:30 p.m. Friday, April 4, in the Hibiscus Ballroom of the Ala Moana Americana Hotel.

Geared for physicians and other health care professionals, "AIDS, Learning Together" features a faculty that includes many of the top names in AIDS research and treatment.

The conference is being sponsored by the Life Foundation, the Hawaii State Department of Health, and the Hawaii Medical Association. Co-sponsors include Burroughs Wellcome Company, Hawaii Nurses Association, Kaiser-Permanente Medical Care Program, Kapiolani Women's and Children's Medical Center, Kuakini Medical Center, Queen's Medical Center, and St. Francis Hospital.

Mainland faculty participating will include Donald I. Abrams, MD, assistant director of AIDS Activities, San Francisco General Hospital; Michael S. Gottlieb, MD, immunologist, assistant professor of medicine at the University of California, Los Angeles; Deborah Greenspan, BDS, associate clinical professor, oral medicine, University of California, San Francisco; Harold W. Jaffee, MD, chief, Epidemiology Section, AIDS Activity Centers for Disease Control, Atlanta; and Jay A. Levy, MD, virologist; professor of medicine, Departments of Medicine, Microbiology and Immunology, and of Pathology; Research Associate, Cancer Research Institute, University of California School of Medicine, San Francisco.

Also: Alison Moed, RN, BSN, head nurse, Ward 5B: Medical Special Unit for AIDS, San Francisco General Hospital; Mervyn F. Silverman, MD, MPH, past director, Department of Health, San Francisco; and Constance B. Wofsy, MD, co-director, AIDS Clinic & Inpatient Unit, assistant chief of infectious diseases, San Francisco General Hospital, associate clinical professor of medicine, University of California at San Francisco.

Local faculty members taking part will include Arthur P. Liang, MD, MPH, chief of the Communicable Disease Division, State of Hawaii Department of Health; and David McEwan, MD, CFPC, president, Life Foundation, and chief, family medicine, Honolulu Medical Group.

Topics include epidemiology of AIDS in the United States; Hawaii statistics; public health policy, problems, and politics; ARV: How does it cause disease?; oral manifestations of AIDS virus infection; infection control issues for the dental office; AIDS retrovirus infection: Clinical manifestations; opportunistic infections in AIDS; heterosexual transmission of AIDS; nursing experience in an AIDS unit; and strategy for HTLV infection. A question-and-answer session will follow the presentations.

Registration is limited and enrollment preference will be given to physicians, dentists, nurses, and other health care professionals.

Cost for the seminar is $80 for physicians and dentists; $40 for nurses and other health care professionals; and $30 for all others. If registering after March 14, add $20 to the total registration fee.

The conference provides continuing education credits on an hour-by-hour basis for both physicians and nurses.

For more information, and to register, contact the Life Foundation at 924-2437, the Hawaii Department of Health at 735-5303, or the Hawaii Medical Association at 536-7702.

Opening Day at the State Legislature

OPENING DAY . . . leis, hugs, and kisses, and the state Legislature is a flurry of fun and activity. HMA physicians and staff members made the rounds, said their alohas, and ate plenty of sushi, Haagen-dazs ice cream, homemade pastries, and . . . From left: Becky Kendro, HMA assistant executive director; Judi Kingrey, HMA staff; Sen. Neil Abercrombie; Jennilyn Etrata, HMA staff; Richard Lundborg, MD, retired anesthesiologist-lobbyist for HMA.

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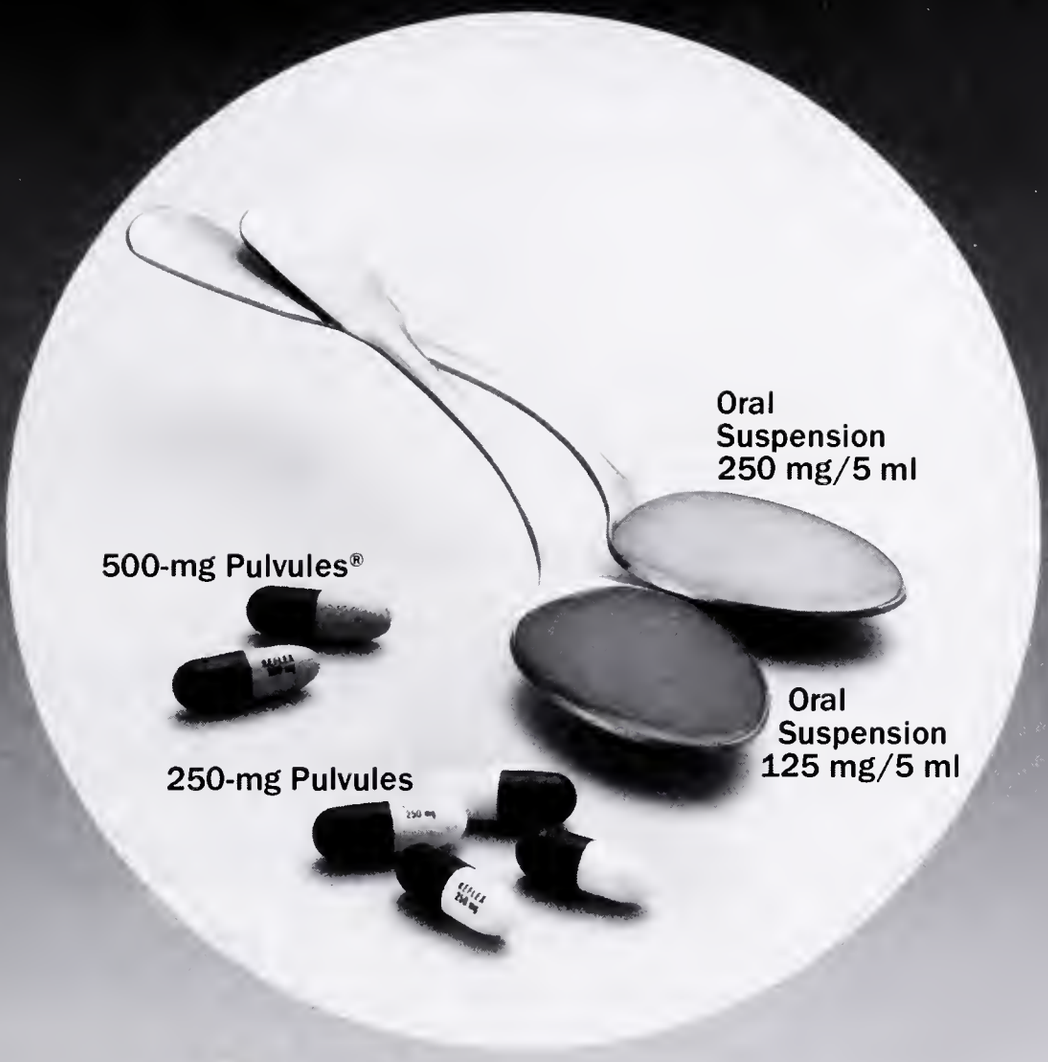

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Over the Editor's Desk

ST. FRANCIS HOSPITAL-WEST HAS ANNOUNCED THE START OF ITS MARKETING PHASE for its new medical office building and hospital in Waipahu. The hospital said site plans and special permits have been approved by the Honolulu City Council.

The announcement was made by Sister Maureen Keleher, chief executive officer.

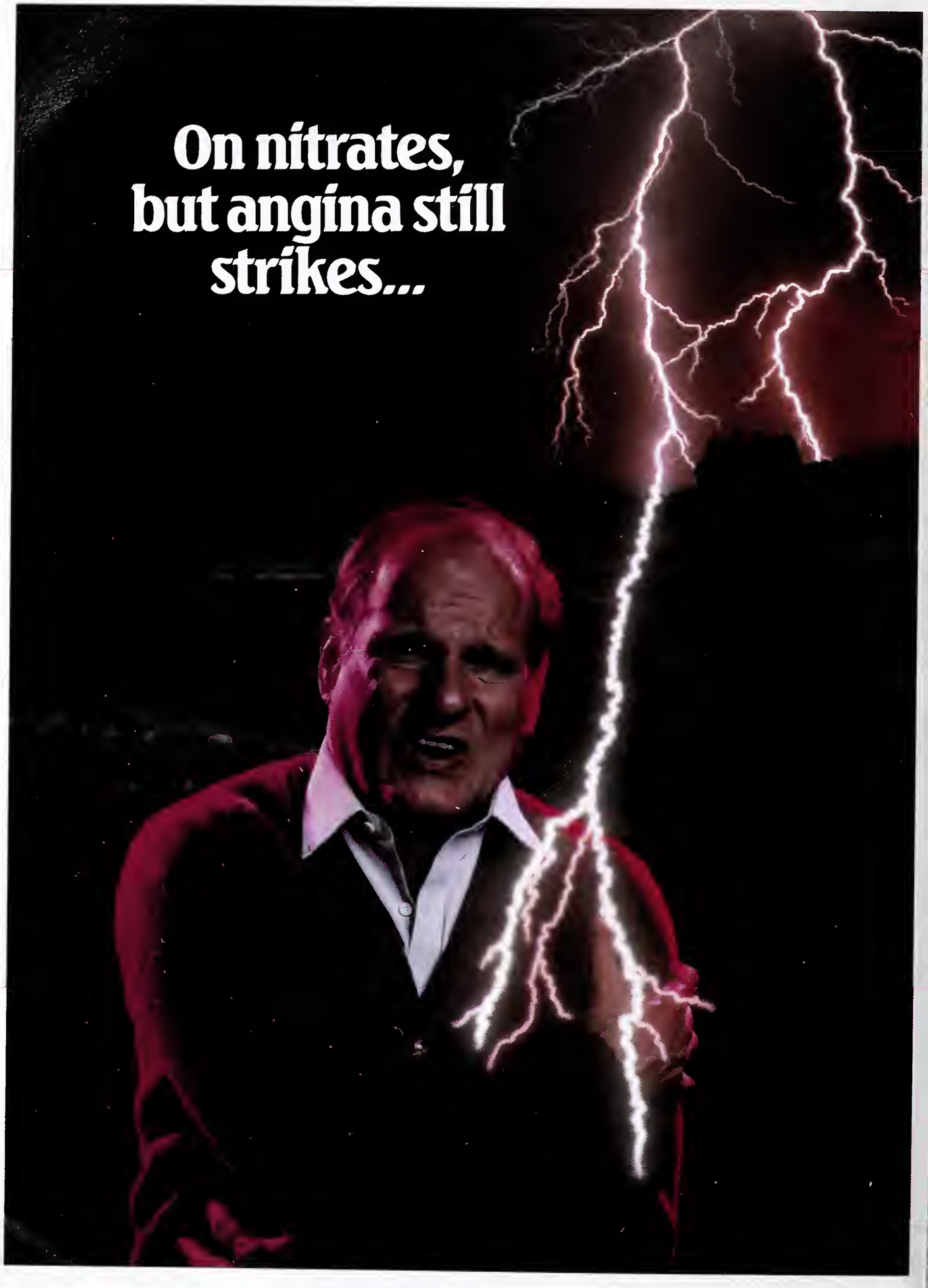
The Hawaii premiere of The Jeweler's Shop, a play written by Pope John Paul II, formally opened the new L.Q. Pang Educational Center Nov. 1. Family and friends of Dr. L.Q. Pang and his wife, Tita, gathered at the opening-night champagne reception as a benefit for St. Francis Hospital.

A TOTALLY NEW AND DIFFERENT APPROACH TO DRUG EDUCATION was presented to more than 3,700 public and private school students in grades seven through 12 on Kauai in November.

Entitled High on Kauai, this American Lung Association of Hawaii pilot project taught teenagers about the health hazards of smoking marijuana, at school assemblies in early November and at a massive Island-wide carnival event Saturday evening, Nov. 23, at the Kauai War Memorial Convention Hall.

DAVID FITZ-PATRICK, MD, OF HONOLULU HAS BEEN ELECTED TO FELLOWSHIP in the 61,000-member National Medical Specialty Society. A 1974 graduate of the University of Newcastle-Upon-Tyne in England, Fitz-Patrick has been a resident of Honolulu for four years. He is director of the Diabetes Center of the Pacific; consultant endocrinologist at Straub Clinic and Hospital; assistant clinical professor of medi-

(Continued on page 86)


On nitrates,
but angina still
strikes...

After a nitrate, add ISOPTIN®
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To protect your patients, as well as their quality of life, add Isoptin instead of a beta blocker.

First, Isoptin not only reduces myocardial oxygen demand by reducing peripheral resistance, but also increases coronary perfusion by preventing coronary vasospasm and dilating coronary arteries — both normal and stenotic. These are antianginal actions that no beta blocker can provide.

Second, Isoptin spares patients the beta-blocker side effects that may compromise the quality of life.

With Isoptin, fatigue, bradycardia and mental depression are rare. Unlike beta blockers, Isoptin can safely be given to patients with asthma, COPD, diabetes or peripheral vascular disease. Serious adverse reactions with Isoptin are rare at recommended doses; the single most common side effect is constipation (6.3%).

Cardiovascular contraindications to the use of Isoptin are similar to those of beta blockers: severe left ventricular dysfunction, hypotension (systolic pressure <90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no artificial pacemaker is present) and second- or third-degree AV block.

So, the next time a nitrate is not enough, add Isoptin...for more comprehensive antianginal protection without side effects which may cramp an active life style.

ISOPTIN. Added antianginal protection without beta-blocker side effects.

Please see brief summary on following page.

Continuing Medical Education

(Continued from page 76)

Wahiawa General Hospital

1. CME Program, Tuesdays, 1-2 p.m., Conference Room. (For further information, call the Medical Records Department, 621-8411.)
   *Note: All conferences are subject to change. Monthly calendar is available upon request.

SPECIAL EVENTS

All special events should be confirmed with the CME program sponsors, as cancellations are not necessarily reported to the HAWAII MEDICAL JOURNAL.

Mar. 15-22, 1986	Medical Malpractice, University of Washington School of Medicine, CME, Health Sciences E-303, Seattle, Wash. 98195, (206) 543-1050. Location: Royal Lahaina, Maui.
Mar. 16-22, 1986	The Robert Wong Lectureship with Dr. Allan M. Lansing, director of the Humana Heart Institute. Location: Honolulu.
Mar. 17-21, 1986	University of Hawaii Sports Medicine Course, University of Hawaii, College of Continuing Education, 2530 Dole St., Honolulu 96822, (808) 948-8249. Contact: Joy Lewis. Location: Pacific Beach Hotel, Honolulu.
Mar. 22-29, 1986	Orthopedics, Ob/Gyn, Pain, Obesity, and Surgery, University of Washington School of Medicine, CME, Health Sciences Center E-303, Seattle, Wash. 98195, (206) 543-1050. Location: Sheraton Kauai.
Mar. 24-28, 1986	Ob/Gyn Update 1986, co-sponsored with the University of Washington School of Medicine, Department of Ob/Gyn and the University of California at Los Angeles, Department of Ob/Gyn. Location: Waiohai Hotel, Kauai.
Mar. 26-28, 1986	Psychiatry in the '90s: Today's Practice and Tomorrow's Perspectives, co-sponsored by Tripler Army Medical Center, The Colorado Psychiatric Society, and the Hawaii Psychiatric Society. Location: Waiohai Hotel, Kauai.
Mar. 29-Apr. 5, 1986	Pediatric Emergencies, American Institute of Postgraduate Education, Edith S. Bookstein, Conference Management Associates, P.O. Box 2586, La Jolla, Calif. 92038, (619) 454-3212. Location: Kauai.
Apr. 5-12, 1986	Drug Therapy, University of Washington School of Medicine, Continuing Medical Education, Health Sciences Center E-303, Seattle, Wash. 98195, (206) 543-1050. Location: Sheraton Princeville.
Apr. 12-19, 1986	Pediatrics 1986, Current Concepts, University of Washington School of Medicine, Continuing Medical Education, Health Sciences Center E-303, Seattle, Wash. 98195 (206) 543-1050. Location: Sheraton Kauai.
Jul. 7-12, 1986	XVIII International Congress of Pediatrics, American Academy of Pediatrics, 141 Northwest Point Rd., P.O. Box 927, Elk Grove Village, Ill. 60007, (312) 228-5005. Location: Honolulu.

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Over the Editor's Desk

(Continued from page 81)

cine at John A. Burns School of Medicine at the University of Hawaii; and president of the American Diabetes Association, Hawaii Affiliate.

The announcement was made by the American College of Physicians.

TAMBOCOR (FLECAINIDE ACETATE) B.I.D. IS A UNIQUE ANTIARRHYTHMIC DRUG of the highly effective class 1-C agents that is now available from Riker Laboratories/3M. Controlled, worldwide clinical studies in patients with ventricular arrhythmias have demonstrated that Tambocor suppresses both simple and complex PVCs more effectively than either quinidine or disopyramide, and has proved effective in the treatment of refractory sustained and non-sustained V-tach, with a high, well-documented safety profile. Submitted by: Jan Skinner, Riker Laboratories/3M Co., 1333 Honokahua St., Honolulu 96825.

BY AN OVERWHELMING 89-7 VOTE, THE SENATE OVERRODE A PRESIDENTIAL VETO OF THE BIOMEDICAL RESEARCH EXTENSION ACT OF 1985. Utah Sen. Orrin G. Hatch said, "We need to bolster our technological means of waging war on cancer, heart disease, high blood pressure, Alzheimer's disease and promote more and more effective ways of administering health care."

PAUL A. DEMARE, MD, CHIEF OF RADIATION ONCOLOGY at St. Francis Hospital, was recently elected president of the Hawaii Pacific Division of the American Cancer Society. Elected to

DeMare

Will

a second term as the division's chairman of the board is Drake W. Will, MD, chief of pathology and vice president for medical and dental staff services, The Queen's Medical Center.

Tell her where it hurts, and Louann Lombardi starts to operate.

Meet one of our doctors.

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Of course, it doesn't hurt that Louann has the help of the latest diagnostic systems. And a back-up team of other specialists.

But ultimately, it's her own hustle and dedication that make Louann the good "doctor" she is.

And that's something you'll appreciate, even if you never need a house call.

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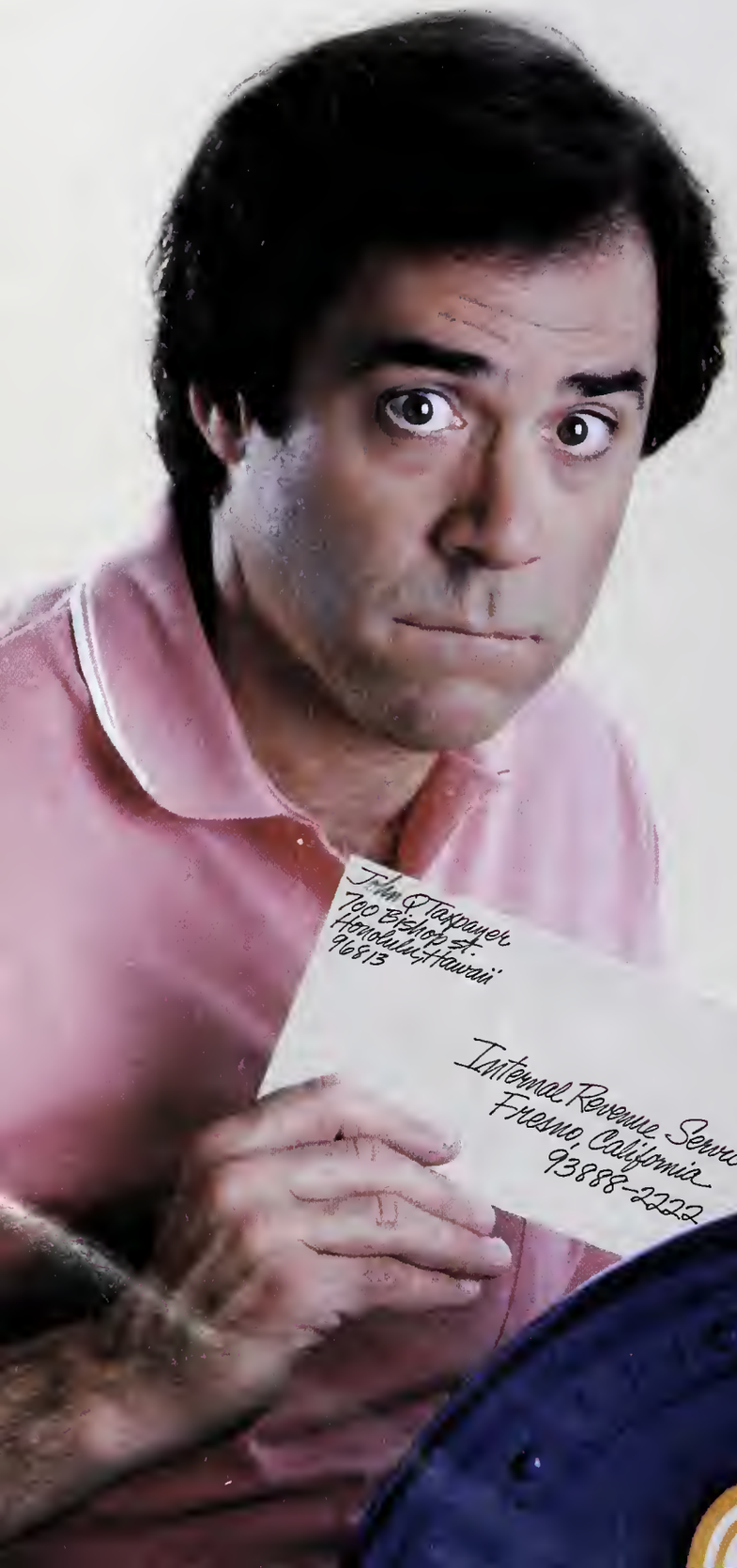

IRA's are a great way to save money. And a First Hawaiian IRA is guaranteed to keep growing. Now it's easier than ever to get an IRA Loan, even if you don't have the cash on hand.

Our IRA Loan is a three year loan—which is why the payments are so low. For example, the payment for a $2,000 loan is only $67 a month. If you qualify, you can borrow up to $8,000. And with no prepayment penalty, you can choose to pay off your loan anytime. See any First Hawaiian branch for more details.

Here are some examples of how much you may save with an IRA Loan.	If you are single with 1985 Federal taxable income of $30,000	If you are a working couple filing jointly with 1985 combined Federal taxable income of $40,000
Your IRA Loan	$ 2,000	$ 4,000
1985 Tax Savings*	+ 800	+1,625
Interest Earned on IRA	+ 176	+ 352
Interest Paid on IRA Loan	− 182	− 364
NET SAVINGS FOR FIRST YEAR	$ 794	$ 1,613
TOTAL TAX SAVINGS, RETIREMENT SAVINGS AND INTEREST GAIN FOR FIRST YEAR	$ 2,794	$ 5,613

Loan rate is a blend of 10.56% APR for the first year and 13.92% for the remaining 2 years. 36 monthly payments of $66.43 for a $2,000 ($132.86 for a $4,000) 3-year IRA Loan (12.00% Annual Percentage Rate).

Interest earned is for 1 year on the FHB 3-year IRA deposit with effective yield of 8.816%.

Loan rate and IRA deposit yield are as of January 30, 1986 and are subject to change.

Substantial penalty for early withdrawal of an IRA. IRA Loan applicants must meet IRA eligibility requirements.

IRA Loan program ends April 15, 1986.

*Includes both Federal and Hawaii State tax savings.

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HAWAII MEDICAL JOURNAL

CONTENTS

HAWAII MEDICAL ASSOCIATION · 1856 ·

Strong on results

before Otoscopic view of tympanic membrane in a patient who did not respond to ampicillin

after Same patient after ten days of Bactrim (trimethoprim and sulfamethoxazole/Roche) therapy

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ROCHE®

in acute otitis media

- **Penetrates and clears middle-ear fluid of susceptible strains of *H. influenzae* and *S. pneumoniae*[1]**
- **Reduces evidence of inflammation and bulging eardrum[2]**
- **Results in a reduction of fever, pain and other symptoms[2,3]**

Active against 86% of *H. influenzae in vitro*—even amoxicillin- and ampicillin-resistant strains

Overall, 86% of *Haemophilus influenzae* strains taken from sputum cultures prove susceptible *in vitro* to Bactrim.[4] In one study, 100% of 191 ampicillin-resistant *H. influenzae* isolates were susceptible to Bactrim.[5] However, *in vitro* data do not necessarily correlate with clinical results.

Active against 91% of *S. pneumoniae in vitro*

In sputum cultures of *Streptococcus pneumoniae*, the most frequent pathogen in acute otitis media, 91% of isolates show susceptibility *in vitro* to Bactrim.[4]

Excellent clinical activity—and economical

In comparative clinical trials in children with acute otitis media, Bactrim *b.i.d.* was unsurpassed by ampicillin, amoxicillin or cefaclor.[6]
And the average cost of Bactrim is lower than that of cefaclor and comparable to that of ampicillin and amoxicillin.[7]
Bactrim is indicated in acute otitis media due to susceptible organisms when it offers an advantage over other antimicrobials. Bactrim is contraindicated in pregnancy, lactation, infants under two months of age and documented megaloblastic anemia due to folate deficiency. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age.

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References: 1. Klimek JJ *et al: J Pediatr 96:*1087-1089, Jun 1980. **2.** Schwartz RH *et al: Rev Infect Dis 4:*514-516, Mar-Apr 1982. **3.** Cooper J, Inman JS, Dawson AF: *Practitioner 217:*804-809, Nov 1976. **4.** Antibiotic Sensitivity Report, Winter 1983. BAC-DATA Medical Information Systems, Inc. **5.** Data on file, Hoffmann-La Roche Inc., Nutley, NJ **6.** Wormser GP, Keusch GT, Heel RC: *Drugs 24:*459-518, Dec 1982. **7.** *Med Lett Drugs Ther 23:*93-95, Oct 30, 1981

Please see summary of product information on the following page.

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Editorials

This is my Mana'o

Things are happening fast and furious everywhere in the world, the nation, in Hawaii and in the local medical community. It is difficult to keep up with events.

At the regularly scheduled meeting of the QMC Medical/Dental staff on Nov. 5, 1985, C-of-S Jim Stewart announced that the QMC Board of Trustees intends to raise MMPI (Medical Malpractice Insurance) premium requirements — or has to — to $500,000/$1 million level of coverage.

"There have been suits, with the hospital involved, for more than a million dollars," said Stewart. George Bolian confirmed the fact and added the incredible statement that suits have gone as high as $161 million. (Or did we hear aright?) Further comment indicated that Straub is now requiring $1 million/$6 million.

Bill Hindle, just back from a visit to HCFA, where he found the nation's top health agency in disarray, added to the MMPI discussion by indicating that it sometimes took 15 years to conclude a case of medical malpractice and that it was common for a truly aggrieved patient to wait five years before payment of compensation ensued.

At the Jan. 3, 1986, HMA Council meeting, staffer Ray Higa reported that HMA was submitting a grant proposal to DSSH for $29,000 in order to study the problem of the ethics involved in the withdrawal of life support systems in the case of patients who are terminally ill. This probably ties in with HMA's recent poll of members as to how they feel about "living will" legislation.

Allan Kunimoto, heading HMA's effort to find a new home (it has to evacuate its present abode), has received a 27% response to the poll of members on their preference as to how to finance the proposed building to go up on the open lot at Beretania and Keeaumoku streets. Of the responders, an overwhelming 86% favored the purchase option. We are wondering how the other 73%, the non-responders, feel. Are they opposed to the whole idea of HMA putting up a building on land it now owns outright? Or do they not know which financing option to choose? Or does it not matter to them which choice is made ultimately? Or have they simply ignored the in-baskets on their desks?

Before any financing plan can be instituted, the Council must, and did, vote to return the monies previously "loaned" interest-free by members to the old "Dang Plan."

An interesting bit of news came from Bill Iaconetti, delegate to the AMA at its interim meeting the end of 1985: Of the $74 billion paid by the government to physicians, 17% went for professional liability coverage.

J.I. Frederick Reppun, MD
Editor

Music, Medicine and Mankind: A Musing

Sitting in the fourth row parterre and right smack in the middle, in the Neal Blaisdell Auditorium, we had the delight of both listening to, and viewing, the Honolulu Symphony at its Tuesday, Dec. 17, Classic Series-8 concert. Our partner dubbed that particular program "a sing-along," because of its very familiarity: Schubert's No. 5, Strauss' Till Eulenspiegel, and Tchaikovsky's Concerto No. 1. Until after the huge grand piano, dead center stage front for virtuoso Jose Feghali in the Tchaikovsky, obstructed our view of the conductor, we also enjoyed the rhythm of Donald Johanos' flapping coattails with gesticulating arms protruding above.

It was the anatomy of the fingers, seen close on, that set the train of thought on its way. The violinists, on our left, mostly female, exhibited the right hand, holding the bow gently, caressingly, the fingers firmly set and immovable, but the wrist and arm in fluid, coordinated rhythm.

On our right the cellists, and behind them the huge bass fiddles, were more on the male side. Most fascinating was the left hand of a woman, whose very white hand had long fingers. There was little flesh, revealing slim bones and tendons working together.

What marvelous and intricate coordination is manifested by the human hand! Almost alone in the playing of a musical instrument does it reach its peak of perfection measured by the purity of tone and the precision of sequence. Perhaps even with the speed of light, the sensory and the motor pathways in the human body work together to produce the art. There is voluntary control from the cerebral cortex, yes, but long practice makes precision and perfection happen almost automatically.

And then the whole magnificent orchestra is a human wonder, a transition from the anatomy of each part to the anatomy of the whole. Each individual human in it, perfect alone, is perfect in conjunction with fellow humans as well. Marvelous, exhilarating, prideful and uplifting! We *can* and *do* it: Work together to perfection! Would could the humans on this planet but do the same!

As for the conductor? We wondered. Was he the master of this cohesive effort, the key to the precision without whom it would all fall apart in anarchy? Did it mean that one brain — and only one — is needed to orchestrate a world of peace on earth?

We watched the faces of the players, their eye movements, how often they looked away from the sheet music before them in order to glance momentarily at Johanos. We concluded that this orchestra, this human, anatomical, social entity had been so well trained by him in the practice sessions, that his antics at the performance were perhaps superfluous; the orchestra could have performed, and as well, without him on the podium. However, we wondered.

Perhaps a dictator — a single "global brain" — is needed in order to bring mankind into a coordinated peaceful whole. This was emphasized just once, during that concert, when the conductor rapped his baton on the stand for attention; the orchestra strings rested their bows in their laps and all movements stopped as Johanos half-turned toward the audience and waited, frowning, until the last cough died down before once again bringing his team to attention!

We have discussed the physical anatomy of the individual players and the mechanical cohesion of the orchestra as a social entity. But the element of a soul as well was projected onto us in the audience when young Brazilian Jose Feghali went through the concerto. The piano is a magnificant and wide-ranging instrument; Tchaikovsky, the alternately brooding, passionate, soaring and joyful Russian composer, drew every potential out of piano-plus-orchestra. And, Feghali made it come alive.

We could not take our eyes off his figure and face. He seemed to be talking, shouting, whispering, cajoling, dreaming as he played, oblivious of audience, orchestra and even the conductor, except for brief intervals of respite. Here was a virtuoso indeed — an individual enthralled with his own feelings, expressing his own rapture with life and with a supreme being, perhaps, transcending mankind's petty squabblings.

The emotional experience was exhausting — no doubt to the player(s) but even for us in the audience. The contrast between the utopian social entity that man aspires to in a "one world of peace" concept, perhaps under a benevolent director, and the heights attainable by individual virtuosos in absolute freedom was manifest.

The marvel of the human body, of which physicians are particularly cognizant, and the marvel of the human soul and its aspirations toward individual and social perfection are brought out through music.

J.I. Frederick Reppun, MD

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The HMA President's Message: Terminal Illness Revisited

Scott and I were acquaintances in medical school. It was in those halcyon days prior to Vietnam, Medicare, the Great Society, and abortion on demand. The two of us became really close friends when we served in residency in the same hospital, but in different programs. After our medical incubation, we went our separate ways, but we remained reasonably close with letters about family activities once or twice a year.

Stodd

One fine summer, he invited me to join him on a fishing and camping outing in the big sky country of Montana. I met him there in his home community, and we went about the business of getting our gear together: fishing tackle, hiking boots, and then we stopped at the bank for that most vital travel necessity, money. The bank manager saw us, or rather saw Scott, and came out to greet us; then the banker asked Scott, who was caring for his, the banker's sister, how she was doing. He knew that she was desperately ill.

She was a young woman, less than 40 years, who had been found to have pelvic cancer. Sadly, the diagnosis was not known until the disease was widespread. Scott described her failing condition in straight terms, knowing that this intelligent man would understand. He related some details about the gravity of her disease, and then said that heroic measures could be tried. This would involve extensive surgery, with prolonged hospitalization, and considerable expense. He added that at best, this would extend her life for a short period, exactly how long, one could not say. Then he added that he would not do that.

He talked of the good life which she had, of the support and devotion of her family, and of the courage, love and kindness she displayed. He said she would probably lapse into coma and die painlessly, and that he would keep her as free from pain as possible.

The bank manager listened intently, thanked Scott, then said that he understood, and felt that his medical decision was a good one. We left the bank and continued on our way, somewhat quieter, with the elation of our outing subdued for the time. In the intervening 20 years, I have forgotten most of the fishing and camping, but the meeting at the bank is still vividly imprinted in memory.

Could the same event occur today? Probably not. It is quite likely that the final decision would be the same, but not until a labyrinth of consultations with clergy, family, additional physicians, hospital committees of various names, attorneys, notaries and detailed documents had all been included in the chart.

In our efforts to legislate our collective belief about prolonging life — or prolonging death — we really accomplish just the opposite. The art of medicine is not a piece of paper, it is a state of mind. No document can prescribe a loving family, a religious faith, a compassionate, caring physician, and these are the hope and comfort of the dying person.

Russell T. Stodd, MD
HMA President

Clinical Pathologist's Easy Chair

Francis H. Fukunaga, MD

Red-Cell Distribution Width

Automated methods of blood-cell counting have revolutionized the hematology laboratory. They have replaced inaccurate manual procedures and have changed some of our concepts of the anemias. The standard deviation of automated red-cell counts is less than 0.1 million per dl while the manual method SD is about 0.5 million per dl. The SD of the MCV by automated instruments is below 1 fl vs. the higher calculated MCV by the manual methods due to the falsely elevated hematocrits. These automated instruments provide additional data that can be useful as diagnostic aids and also help in the interpretation of abnormal results.

Wintrobe pioneered the use of INDICES that were calculated from the measurements of hemoglobin, hematocrit and red-cell count.[1] The MCV (mean corpuscular volume) is hematocrit/RBC-count; the MCH (mean corpuscular hemoglobin or average hemoglobin concentration of the red-cell) is hemoglobin/RBC-count: and the MCHC (mean corpuscular hemoglobin concentration) is hemoglobin/hematocrit. These indices allowed the classification of the anemias according to size (normocytic, microcytic and macrocytic) and hemoglobin concentration (normochromic and hypochromic). These mean values, however, may be misleading; they represent a wide range of values. An MCV of 90 fl may indicate normal red blood cells but may also represent a mixed population of small and large cells.

The automated systems not only increased the accuracy of Wintrobe's indices but also have changed our perception of some of the indices. Manual methods measure hemoglobin,

(Continued on page 100)

TABLE 1.

Low MCV and Normal RDW:
Chronic disease
Thalassemia minor

Low MCV and High RDW:
Iron deficiency
Red cell fragmentation
Hemoglobin H
S-beta Thalassemia

Normal MCV and Normal RDW:
Normal
Chronic disease
Nonanemic hemoglobinopathy (eg; AS, AC)
Hereditary sperocytosis
Hemorrhage
Chemotherapy
CLL, CML

Normal MCV and High RDW:
Anemic hemoglobinopathy (eg; SS, SC)
Early iron, B-12 or folate deficiency
Myelofibrosis
Sideroblastic anemia
High RBC count (KMC experience)

High MCV and Normal RDW:
Aplastic anemia
Preleukemia (Myelodysplasia)

High MCV and High RDW:
B-12 or folate deficiency
Immune hemolytic anemia
Cold agglutinins
CLL with high count

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Significant Workers' Compensation Losses at Straub Clinic and Hospital, Inc. — Honolulu, Hawaii

Thomas M. Cashman, MD, Frank L. Tabrah, MD,
Margretta B. Obrecht, RN, MPH

Workers' compensation losses are of significant concern because they are very difficult to control in Hawaii's current legal/economic system.

Twenty-five workers' compensation cases among hospital employees requiring insurance reserves greater than $5,000 during 1984 were reviewed. The greatest losses were due to back pain; $310,940 in reserves were lost from 14 cases, averaging $22,210 per case. Hospital nurses (RNs/LPNs) seemed to be at greatest risk. Injuries causing severe losses were almost equally divided between lifting episodes and slips and falls.

At present, Straub Clinic & Hospital is developing an aggressive in-house Occupational Medicine Program emphasizing prevention, worker protection, and an early return to work (light duty) system.

The Joint Committee on Accreditation of Hospitals (JCAH) requires that hospitals maintain records of pre-employment health examinations and subsequent health care rendered to hospital employees, to ensure that employees are free from communicable disease and that they are physically able to carry out the duties expected of them.

Problems of occupational health in hospitals[1] include the stress of shift work, exposure to biologicals and chemicals such as ethylene oxide in sterilization units, protection of pregnant workers, infection control and the hazards involved in maintenance work and the duties of security personnel.

Cuts and wounds from knife and saw blades and needles are common injuries. Kitchen workers and sterilizing workers are exposed to potential scalds and burns. Occupational asthma from formalin has been reported in workers in renal dialysis units. Hexachlorophene, a teratogen, is in soap used by hospital workers. Wives of male anesthesiologists have an increased incidence of spontaneous abortion.[1] There are also problems of exposure to asbestos from ceilings and pipes. Drug overuse is high among hospital personnel and stress and fatigue are particular problems, especially among intensive care personnel.[1]

Hawaii's workers' compensation losses are the greatest in the nation. (See Table 1.)[2] Hawaii ranks first in the nation in percent of payroll deduction for workers' compensation insurance premiums and lost time per 100,000 man-years; both are more than twice the national average. Permanent total disability cases per 100,000 man-years are 10 times the national average. The state ranks second in permanent partial disability cases per 100,000 man-years, more than twice the national average. The average cost per medical benefit is $878, third in the nation; the total benefit per 100,000 man-years is $38.3 million, fourth in the nation.

These high losses are attributable to the Hawaii Supreme Court's interpretation of language originally found in the New York workers' compensation law. Hawaii's interpretation of this law is significantly different from that of the New York courts. Because of the presumptive clause, it is rather easy to establish entitlements of benefits under Hawaii's laws and in some instances it is virtually impossible for employers to defend against a claim even in the absence of evidence that it is compensable. (Under the presumptive clause, the employer has to prove that an injury is not occupational in nature.) Additionally, the law allows generous interpretation of average weekly benefits, especially for workers who customarily work less than 40 hours a week.

Other causes of high loss from the workers' compensation fund are Hawaii's short waiting period of two days for temporary total disability benefits, (most states require 14 days), and permanent disability benefits given to employees with minor injuries who later have the ability to return to similar jobs with no loss of earning capability. There is also generous allowance for compensating injured workers who had a preexisting disability that occurred prior to the injury. An injured worker can reopen a case long after benefits have stopped — far longer than in most other jurisdictions. This encourages inequitable settlements with release agreements to terminate the employee's right to future benefits in exchange for large sums of money. Such structured settlements threaten the stability of the workers' compensation program in Hawaii, resulting in additional cost to the system and to the consumer. The frequency of these settlements is increasing.[2]

Under Hawaii law, the injured worker has the right to choose a physician and there is no limit on the number of physicians or alternate-care providers he chooses to see. Furthermore, there is no limit on the number of visits.

Depending on one's point of view, this interpretation of the workers' compensation law by the Hawaii Supreme Court is considered to be either "progressive," or "excessive." Because legislative reform efforts are unlikely to bring down the cost of workers' compensation, Straub is vigorously pursuing preventive occupational medicine programs.

Materials and Methods

Straub Clinic & Hospital, Inc., Honolulu, Hawaii, has more than 1,400 em-

From the Department of Occupational Medicine, Straub Clinic and Hospital, Inc., Honolulu, Hawaii.

TABLE 1.

Category	Hawaii	Rank	National Avg.
Percentage of Payroll for Work Comp Premium	3.8%	1st	1.4%
Lost-Time Cases Per 100,000 Man-Years	5,790	1st	2,780
Permanent Total Disability Cases Per 100,000 Man-Years	94	1st	9
Permanent Partial Disability Cases Per 100,000 Man-Years	1,474	2nd	591
Average Cost Per Case of Medical Benefits	$878	3rd	$592
Total Cost of Benefits Per 100,000 Man-Years	$38.3 mil.	4th	$20.3 mil.

Data supplied by Chamber of Commerce of Hawaii.

TABLE 2.
$5,000 Reserve 1984
Losses by Diagnosis

DX	No.	$ Med. Rx	$ Indem.	$ Total	$ Per Case
Low back pain	14	141,080	175,014	310,940	22,210
Neck pain	3	36,473	121,824	158,297	52,766
Shoulder pain	1	22,486	36,144	58,630	58,630
Laceration	1	625	2,675	3,300	3,300
Burn	1	3,532	1,485	5,017	5,017
Knee injury	4	8,044*	17,857	25,901	5,475
Contusion	1	2,515	—	2,515	2,515

*Medical payment pending in one case.

Data supplied by Chamber of Commerce of Hawaii.

TABLE 3.
Costing >$5,000
Losses by Injury (1984)

	No.	$ Med. Rx	$ Indem.	$ Total	$ Per Case
Falling	10	114,461	137,664	252,125	25,213
Lifting	11	88,542	136,515	225,057	20,460

Data supplied by Chamber of Commerce of Hawaii.

ployees. One hundred physicians practice in a multispecialty setting. There are more than 200 job descriptions in the organization. Significant workers' compensation losses were reviewed for baseline data to develop an Occupational Medicine System for Straub Clinic & Hospital.

The Human Resources Office identified 25 active cases in 1984 as using reserves greater than $5,000 set aside for workers' compensation payments. Medical and insurance company records of these patients were analyzed.

Results

Of the 25 cases reviewed, 21 were female with an average age of 40.7 years; four were male with an average age of 40.6 years. Thirteen (52%) were registered nurses (RNs) or licensed practical nurses (LPNs); three (12%) were nurses' aides (NAs); three (12%) were clerk typists; two (8%) were security guards. Others were one physician, one volunteer, one worker in housekeeping and one respiratory therapist.

Fourteen (56%) of the injured workers suffered low back pain; three (12%) suffered neck pain; and four (16%) had knee injuries. Other losses were single occurrences involving a shoulder injury, a burn, a contusion, and a laceration. (See Table 2.)

Injuries reported as falls and slips occurred in 10 workers (40%); patient lifting injuries occurred in nine workers (36%). Other lifting injuries involving trash bags or boxes occurred in two workers (8%). In all, 11 (44%) of the injuries were due to lifting mishaps.

By diagnosis, loss was greatest, in terms of medical payments and indemnity expenditures, for low back pain, totaling $310,940, or an average of $22,210 per injured worker. However, neck and shoulder injuries were more expensive per injury at $52,766 and $58,630 per case, respectively.

Comparing the cost of falls to lifting injuries, losses per fall were a little greater at $25,213 per case, compared with $20,460 per lifting injury. The difference between these two figures, however, is not significant ($p > 0.05$ Wilcoxon rank-sum test. (See Table 3).

Of the 13 RNs/LPNs injured, eight (61%) suffered low back pain. The other five had any one of four other diagnoses.

When the 14 cases of the low back pain were classified by occupation, eight (57.1%) incurred by RNs or LPNs, and two (14.2%) by nurses' aides, who are probably exposed to the same risk of lifting injury as is the RN/LPN group.

As of Jan. 31, 1985, 25 workers on longstanding temporary total disability lost 3,904 work days (10.7 years) and five have not yet returned to work.

Workers with low back pain (14 cases) include four now on light duty and three on prolonged temporary total disability. The latter three have lost a total of 6.2 years of service. Among the 11 who have returned to duty, 1,742 days (4.8 years) were lost, an average loss of 158 days per worker. Among the six RNs, 1,092 days were lost at a cost of $265,531, or $44,255 per case, for sick pay and benefits.

Losses for the entire group of 25 injuries were $214,755 medical and $288,599 indemnity, totaling $503,354, or about $20,000 per worker. These costs do not include replacement cost, which in the case of an RN is $243.16 a day.

Discussion

According to these data, the greatest losses occur when female RNs and LPNs suffer back injuries. Reported elsewhere, low back injuries occur in about 60 percent of all workers.[3] This confirms our impression that low back injuries are a major concern.

Although there seems to be a discrepancy in the literature in how back pain relates to strength and fitness,[4] there is an increase of back pain in women if their work requires hard physical effort.

Increasing responsibility, mental concentration and fatigue predispose a worker to back pain.[5] These stresses are certainly found among the working conditions of hospital-based nurses.

Traditionally, efforts to control back injuries have included attempts at worker selection, teaching of proper lifting techniques and designing or fitting the job to the worker.[4]

Worker selection has not been successful in our situation. The most reliable indicators of predilection for back pain are past episodes. The history can easily be distorted by the potential employee, however.

To date, little emphasis has been placed on examination of trunk strength in relation to employability, despite the association between heavy lifting and back pain. Routine spinal X-rays are *not* considered reliable or desirable, by consensus of the Occupational Medicine Association.[6]

Education in order to prevent back pain has been a disappointment. There has been no significant reduction of injuries since the straight-back, bent-knee lifting technique was introduced 40 years ago.[7] Education programs do not seem to reduce back injuries.[8] Dehlin et al[9] reported that repeated lifting instructions had no effect on recurrent back pain among nurses' aides.

Ergonomics, or fitting the job to the person, has not been seriously attempted in our setting; it is extremely difficult to fit skilled nursing personnel, who are mostly female, to jobs requiring physical strength.

Fitness has been associated with decreased injury, improved self-image and increased productivity. However, while strength-training for nurses' aides decreases the duration of symptoms of low back pain, it does not decrease the frequency or the intensity of episodes.[10] Endurance training has not had a beneficial effect on back pain of nurses' aides.[11]

Straub is attempting to control workers' compensation losses by employing a full-time occupational-health nurse to monitor and follow up all accidents. The nurse also establishes contact with all workers who lose work time, whether the cause is job-related or not. We expect that by establishing a close worker support system, we can decrease time lost by early intervention and direction of these workers to appropriate treatment, thereby minimizing the illness and returning the worker to duty as quickly as possible.

Our occupational-health nurse is working with our personnel department to develop a light-duty return-to-work system. Both the occupational-health nurse and physician are active on the hospital safety committee, and participate in safety and education programs. We have developed an extensive health promotion program for our patients and encourage our employees, as well, to participate at a nominal cost. We have aerobics, weight management and stress reduction programs and have developed our own health risk assessments that complement the employee physical examination by relating lifestyle to the biochemical and physiological parameters measured by the examination. Our occupational-health nurse is developing the concept of annual or semiannual back-care certification, similar to the idea of annual CPR certification.

We hope to develop an employee-community culture that considers good health and safety practices as part of its professional pride and identification.

Continuing supervisor education and participation is essential in any effective injury prevention program. Our greatest emphasis has to be on management and employee responsibility for prevention and safety, with a genuine assurance to all our staff that their own health and well-being is of great concern to us and is the most valuable factor in job productivity and quality performance.

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Clinical Pathologist's Easy Chair

(Continued from page 96)

hematocrit and red-cell count, and calculate the MCV, MCH, and MCHC while the automated systems measure hemoglobin, RBC and MCV, and calculate the hematocrit, MCH and MCHC. The hematocrit values by manual methods are higher because of the trapped plasma between the red cells and this results in a slightly reduced MCHC.[2] This is most prominent in iron deficient red blood cells. Microcytosis without associated hypochromia is more commonly seen with the automated systems. The MCHC is truly elevated in the rare cases of spherocytosis and is falsely elevated as a result of cold agglutinins.

The RDW is an advancement in automated systems based upon the automated sizing of individual red cells. The RDW correlates with the ANISOCYTOSIS seen in blood smears. The instrument measures the size of several thousand red cells and forms a histogram. This histogram is similar to the Price-Jones curve except that the cell volume, a more accurate measurement, is used rather than the cell diameter. The MCV are derived from this histogram and the SD and coefficient of variation (CV) of the cell size are calculated (CV = SD of RBC Volume/MCV x 100). This coefficient of variation is the red-cell distribution width (RDW). The normal RDW is 11.5 to 14.5. The normal range of 9.0 to 10.0 for the earlier automated systems is based upon the width of the same red-cell histogram at an arbitrary level. The RDW is believed to be a more sensitive parameter in microcytic than macrocytic disorders.

Red blood cell disorders can be classified according to their RDW and MCV into six combinations of low, normal or high MCV with normal or high RDW[3]. (See Table.)

This system is especially useful in differentiating microcytic disorders. Iron deficiency anemia shows an elevated RDW and decreased MCV while the anemia of chronic diseases and thalassemia minor show normal RDW and low MCV. A high RDW and normal MCV are seen in early stages of folate and vitamin B-12 deficiency with a later progressive rise in the MCV and RDW in the vitamin deficiencies.

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Ethics and the Independent Medical Examination

Harry K. Davis, MD*

A consultation has long been a hallmark of quality medical care. It affords the attending physician an opportunity to have another physician's opinion rendered for the purpose of improving medical care.

Historically, this has been an invaluable learning experience for the physician in practice, sharing practical, "on the spot" information pertinent to his and his patient's needs with a trusted and respected expert.

As third-party payers came to intervene in the traditional medical care delivery system, the consultation process has come to be known as the "second opinion."

In the course of current trends of government-mandated medical practice emphasizing professional competition and the scramble for a place in the market, a second opinion is often just that and nothing more, rather than an exchange of views as to how best to treat the patient. Second opinions are popularized mainly as they apply to the surgical specialties, the implication being that the original opinion "to operate" electively may have been prejudiced by the surgeon's pecuniary interest. The third-party payer involved in the case feels that a second opinion may save it, the payer/insurance carrier, money, if the second opinion is: "Don't operate!"

Even if the giver of the second opinion is not actually obligated to advise a contrary course — as an obligation to the third party who pays for the opinion — there is the appearance of such a conflict of interest. There is also the incentive for the second opinion-giver to favor his "employer" in order to have the third party continue to give him more of the same kind of "business."

Such "abuses" have occurred, although in most areas in the U.S. physicians have resisted compromising basic medical ethics.

Now we have another wrinkle on the scene: The Independent Medical Examination (IME).

Very quickly, physicians practicing in the highly competitive current climate have learned that in order to get such referrals from insurance companies or plaintiff's attorneys, the physician *must* please his referred source. The way to do so is to circumvent the facts of the case by omitting or restating the medical data in such a way as to be most helpful to the payer. We have observed, after going over a number of these IMEs, that such techniques are being developed, either intentionally or unintentionally, by these physicians. (This is the assumption of an adversarial position.)

These techniques involve:

1—Developing a long, rambling, loosely structured history; interspersing statements made by the patient who is quoting the attending doctor, followed by the Independent Medical Examiner's derogatory comments, jokes or demeaning inferences about the attending's "second-hand" statement. The examiner may even infer that the attending's treatment is in itself iatrogenic. Therefore, when the report is made, the patient's clinical condition is totally disguised in a maze of redundant, inaccurate and incomplete verbiage. One often wonders if the IME is to be either weighed or read, since it contains so many pages of irrelevant verbiage. One recent report contained more than 26 single-spaced, typewritten pages!

2—Independent Medical Examinations are often reported from an adversarial viewpoint, presenting data from history and clinical findings in a way that can be interpreted by the payer for the service as favorable to the payer.

3—Another common practice noted in the IME is to criticize the previous care given to the patient in order to establish the examiner's adversarial position. The Independent Medical Examiner has pecuniary interests that tend to promote such criticism in order to ensure his being asked to do more of the same by the insurance company or plaintiff's attorney.

4—The IME is usually performed by specialists in the appropriate fields of medicine, with expertise limited to one area of medicine. Yet some Independent Medical Examiners, in their omnipotence, make derogatory comments about the care rendered by physicians in other specialties. Such an examiner is often not qualified outside of his own field.

5—Can the Independent Medical Examiner spend 1½ to three hours doing an examination and report, review the findings of other physicians, and be as knowledgeable as the attending physician(s), who have treated this patient for weeks and perhaps months? Perhaps, but I have yet to read an IME that recognized the limitations of a one-time exam and case review.

The unfortunate loser in all of this game of one-upmanship is the patient. Already impaired by his injuries, his victimization continues as he loses confidence in his attending physician, knows the Independent Medical Examiner is a "paid gun" and then wonders "Who can I trust?" Most patients are not aware of the niceties of medical ethics, but after going through the above experience with the Independent Medical Examiner, the patient may view the entire medical profession with disgust and disdain, and wonder if there is any profession that money cannot corrupt.

Can we, as physicians, change this IME system through re-establishing ethics, professionalism, honesty, and integrity and return the adversarial system to the courts? Can we get our "house in order" so patients have respect for both the attending physician and the Independent Medical Examiner? Can the Independent Medical Exam or "second opinion" be returned to the status of consultation?

Perhaps there are ways for the IME to provide a valid second opinion without assuming an adversarial position. The IME could be a helpful service to the insurance company, the plaintiff's attorney, the attending physician, and yet still be within the bounds of medical ethics. Some states have court-ordered

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The Right to Die and the Erosion of Patient Rights

Lawrence L. Heintz*

During a trip to Washington to visit my father, who has end-stage squamous cell carcinoma of the lung, I undertook a study of "Natural Death Acts" and hospital policies and practices in Idaho and Washington.

What I found was sobering. It caused me to counsel my father to cross the state line to Idaho in the event that he needed hospitalization in the last weeks of his life. This is a sorry tale to tell.

My research, which included a study of 25 natural death acts, leads me to urge caution. A poorly drafted natural death act can lead to erosion of patient rights rather than fulfillment of patient wishes.

Idaho and Washington both have Natural Death Acts, so-called "right-to-die" laws, which make living wills legal. So what is the problem? The problems are myriad: the laws can be poorly drafted; they can place bureaucratic barriers in the way of the patient; and the hospital policies that are meant to implement the laws can erode the very rights that the law is designed to protect. This is by no means an exhaustive list of the problems.

The most fundamental problem, and possibly the source of the others, is that clearly these laws were drafted by parties who were not familiar with death and dying issues on a first-hand basis. Let us explore some of these problems with an eye toward the decision faced by the Hawaii Legislature this year.

Hawaii is sure to pass "some" law on this subject during the next two years. The question is: "Will the new law help or hurt patients?" Some think that any "right-to-die law" is better than no law. They point to the fact that last year 23 states had such laws and now 35 states have them. Will Hawaii be the last state?

Philosophers are never much impressed by such popular lines of reasoning. There is no doubt that the "time has come," but the grounds for passage of any particular bill should be the quality of that piece of legislation in remedying the problem at hand. I will try to demonstrate just how mistaken the "any law is better than no law" view is.

Finally, I will again urge Hawaii not to follow the pack, but rather to join the leaders and pass the "Medical Treatment Decision Act" which affirms patients' rights to refuse treatment and provides two vehicles for patients to ensure their rights. It provides both for Living Wills and, more importantly, Durable Power of Attorney for medical decisions.

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Two Defective Natural Death Acts

It is my understanding that the Hawaii Medical Association has been opposed to natural death act legislation for at least 10 years. The reasons have been varied, but the most respected objection always has been: "We haven't seen a bill that is perfect!" It is no surprise, then, that legislators who are not already hostile to this view are loosing their patience with the medical community. Last year I joined the HMA in its efforts to turn the Legislature away from a traditional natural death act to the durable power of attorney approach. In an earlier article I pointed out some of the difficulties that have been found in the California natural death act.[1] The ways to "go wrong" are manifold. Let us look at the experience in the states of Washington and Idaho.

Washington State's Law

I concur with the legislative findings that establish the need for legislation to protect the rights of dying patients. However, difficulties arise in the very first section of the statute: "Definitions." A "qualified patient" is defined as "a patient diagnosed and certified in writing to be afflicted with a terminal condition by two physicians, one of whom shall be the attending physician, and who have personally examined the patient."[2] "Terminal condition" is defined as "an incurable condition caused by injury, disease, or illness which, regardless of the application of life-sustaining procedures, would, within reasonable medical judgment, produce death, and where the application of life-sustaining procedures serves only to postpone the moment of death of the patient." These definitions sharply hamper individuals who want their Living Wills followed exactly. People involved in health care can easily imagine many individuals who would want their "wishes" followed but who could not be "qualified" or considered "terminal" as defined above.

These definitions merit careful scrutiny since they identify the class of individuals who can execute a valid Living Will which will be binding in Washington state. First, while anyone over 18 may execute a Living Will, only Living Wills of patients who have written certification from two physicians indicating that they are terminally ill are legally valid. This clearly excludes most individuals who have signed or are interested in signing Living Wills. The problems is not that it is difficult to find doctors to "certify" terminal illness as defined under the law, but rather that "terminal illness" is utterly irrelevant in most of the instances where a Living Will would actually assist in dealing with the medico-moral questions that so often arise.

Why do I say this? Because terminal illness, as defined in the law, applies to those cases where the condition of the patient is so bad that "regardless of the application of life-sustaining procedures," death would result. In such instances one does not need a Living Will to shore up one's decision to withhold or withdraw "life-sustaining" procedures! These are cases in which the procedures are not therapeutic and thus have no medical, let alone moral, justification.

So, then, we have a statute that makes Living Wills valid only in those instances where they are not needed. When a line of reasoning leads to such an absurd conclusion we have reason to suspect that the position is being misrepresented. But is it? I leave it to you to review the language of the law.

I can only guess as to why the state of Washington has a law on Living Wills that rules out the most germane cases. My guess is that the drafters of this law had two problems. First, since protection of its members, especially the young, helpless, sick and elderly, is such a fundamental goal of society, the legislators could not in any way place the state in the position of being "seen as" approving anything that could be construed as suicide. Second, the drafters failed to have an appreciation of the experience and perspective of physicians and patients in the wide range of situations that occur. Policymakers, lawyers, philosophers and lobbyists who fail to spend considerable time with health care professionals and their problems are sure to commit such a faux pas.

The Washington statute is one of those that provides a model form called "A Directive To Physicians" (Living Will). Unfortunately, the statute does not provide a section that preserves the existing common-law relationship between physicians and patients as regards an individual's right to consent — or to refuse to consent — to medical treatment.

The usual interpretation of the law is that all medical measures must be undertaken to save the life of the patient, unless a valid Living Will is in place.[3] However, the suggested language for the Living Will that is provided in the legislation is defective. That language has been adopted by the Washington State Hospital Association and is being used throughout the state.

Patients in the state of Washington face an erosion of their rights to refuse treatment, rights that were clearly established in 1914 when Justice Cardozo wrote: "Every human being of adult years and of sound mind has a right to determine what shall be done with his (her) body."[4] In the Anglo-American legal system those rights are fundamental. What could be more clear than the landmark judicial opinion: "Anglo-American law starts with the premise of thoroughgoing self-determination. It follows that each man is considered to be master of his own body, and he may, if he be of sound mind, prohibit the performance of life-saving surgery or other medical treatment."[5]

What then exactly is this erosion to which I refer? As pointed out above, the common interpretation of the Washington law is that all patients will be coded unless they have a valid Living Will that precludes it. Furthermore the key paragraph in the law reads as follows:

> "If at any time I should have an incurable injury, disease, or illness certified to be a terminal condition by two physicians, and where the application of life-sustaining procedures would serve only to artificially prolong the moment of my death AND where my physician determines that my death is imminent WHETHER OR NOT LIFE-SUSTAINING PROCEDURES ARE UTILIZED, I direct that such procedures be withheld or withdrawn, and that I be permitted to die naturally." (emphasis added) [2, 3]

The difficulty here is that the law restricts the patient's rights. Washington's Natural Death Act, which is intended to ensure patients' right to refuse treatment, ironically recognizes such refusals only in a very limited situation, namely when the patient must be certified to be in a terminal condition by two physicians AND life-sustaining procedures would not prevent IMMINENT death.

Here we have a terrible dilemma. We must either admit that the Natural Death Act in the state of Washington flies in the face of a long tradition of patients' rights in Anglo-American law, OR we can say that the law was meant to preserve the common law tradition. In addition, it was intended to spell out and reinforce "one troublesome" area of patients' rights.

Neither of these alternatives is acceptable. The second, which some might say is harmless enough, leaves us with patients being treated against their wishes and others fleeing to Idaho in search of more hospitable hospitals.

To make this point more clear, reread the quoted passage above from the standard "Directive To Physician" which is provided by the Washington law with the understanding that all extraordinary measures will be taken in your case UNLESS that paragraph describes your condition. Can you imagine yourself not wanting "everything done" in circumstances other than these? If so, your wish would not be respected in the state of Washington.[7] That is how the law works. It can be found verbatim translated into hospital policy.

Most Natural Death Acts specifically address the cases where the Living Will is least relevant and fail to deal with the most pressing cases. These are the cases where the patient does not want heroic measures taken, while others, whether they be family members or physicians, disagree that Living Wills are relevant. These are the cases where the patient refuses heroic measures that will prolong the dying process maybe for weeks or months, that the patient needs the help of legislation. These are the cases where death is imminent without intervention, but not imminent with intervention. These cases, which explicitly fail to meet the provisions of the law, are precisely the cases where legislation is needed to help patients have their wishes respected.

Idaho's Natural Death Act[8]

While in some respects the Idaho statute is an improvement over that of Washington, it too presents some of the same difficulties. The most serious one is that the Living Will is invoked only after the "attending physician determines that my death is imminent, whether or not artificial, life-sustaining procedures are utilized."[9]

What this means is that patients must first "waste away" to the extent that the artificial life support systems won't work anyway before they can be removed. This is not what the "Society for the Right to Die," or anyone else advocating natural death act legislation, advocates. And surely this is not what patients who execute Living Wills want or expect.

One would have thought that the purpose of the Living Will was to implement the patient's desire not go through the weeks, or months, of wasting away on artificial support. This point is that artificial support is only "support" if it is helping. This legislation only allows it to be removed if it is not helping. Thus the rights of the patient who does not want this medical treatment are either ignored or violated by the Idaho and Washington Natural Death Acts.

The Idaho law is striking and unique in that one can execute a Living Will ONLY AFTER one has been diagnosed as having a terminal illness. One need not be omniscient in order to understand the shortcomings of this restriction. Reality is simply not so accommodating. This provision, when joined with the language of the "Directive To Physician" which is substantially the same as in the Washington law discussed above, even more severely limits the relevance of the Idaho Natural Death Act.

The Idaho law mandates a Declaration of a Living Will which must be precisely followed. That form contains numerous restrictions on who can witness the Living Will and requires that the directive be notarized. While these restrictions are well-intended, they do serve as obstacles for the terminal patient.

The bureaucratic restrictions dehumanize the process by requiring that only non-relatives and persons not connected in any way with provision or payment of the patient's health care may be allowed to serve as a witness. Many, but not all, states that have Natural Death Acts have included such restrictions.

But why? What is the purpose of these restrictions? I believe that these restrictions are out of place in documents that concern health care decisions that are so central to the family unit. Many of the people who would be the most appropriate in witnessing a Living Will, or an Appointment of Agent document, are the ones excluded by these provisions. "Living Wills" are not merely warmed

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Chamber of Commerce of Hawaii
Chaminade University of Honolulu
Council of the City and County of Honolulu
Council of the County of Hawaii
Council of the County of Kauai
Economic Development Corporation of Honolulu
Economic Justice Task Force of the Catholic Diocese of Honolulu
Fashion Guild of Hawaii
Film Industry Support Committee
Flight Attendants Council 14
Forty Plus
Golden Age Club
Graduate Business Student Association
Graphic Communications Local 501
Harvard Club
Hawaii Building & Construction Trades Council
Hawaii Business Roundtable
Hawaii Convention Park Council
Hawaii Council of Engineering Societies
Hawaii Entrepreneurship Training & Development Institute
Hawaii High Technology Council
Hawaii Hotel Association
Hawaii Island Economic Development Board
Hawaii Island Portuguese Chamber of Commerce
Hawaii Loa College
Hawaii Pacific College
Hawaii/Pacific Export Council
Hawaii Production Center
Hawaii Society of Professional Engineers
Hawaii Society/The American Institute of Architects
Hawaii Solar Energy Association, Inc.
Hawaii State AFL-CIO
Hawaii State Central Labor Council
Hawaii Trial Lawyers Association
Hawaii United Gift and Garment Salespersons Association
Hawaii Teamsters & Allied Workers, Local 996
Hawaiian Educational Council
HGEA/AFSCME Local 152, AFL-CIO
Honolulu Community Action Program, Inc.
Honolulu Community Theatre
Honolulu Japanese Chamber of Commerce
Honolulu Port Council
IATSE & MPMO, Local 665
Institute of Electrical and Electronics Engineers, Inc.
Institute of Industrial Engineers
Japanese Chamber of Commerce and Industry of Hawaii
Ka Ohana Aloha for Tourism
Kailua Senior Citizens Club
Kauai Economic Development Board
Kona-Kohala Chamber of Commerce
Laborers' International Union Local 368
Letter Carriers, National Association Local 860
Machinists, Hawaii State Council
Machinists & Aerospace Workers Lodge 1245
Machinists & Aerospace Workers Lodge 1589
Machinists & Aerospace Workers Lodge 1979
Marine Firemen Honolulu Branch
Maui Chamber of Commerce
Maui Economic Development Board
Maui Political Action Council
Media Mix
Metal Trades Council, Hawaii Federation
Musicians Association of Hawaii Local 677
National Defense Transportation Association (Aloha Local Chapter)
National Federation of Independent Business/Hawaii
Newspaper Guild, Hawaii Local 117
Oahu Development Conference
Oahu Private Industry Council
Pacific and Asian Affairs Council
Plumbing & Pipe Fitters Local 675
Postal Workers Union, American Council
Postal Workers Union, American Windward Area Local
Sales and Marketing Executives of Honolulu
Sailors Union of the Pacific
Seafarers International Union
Service Employees International Union, Local 556
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up "wills." Restrictions that apply in the one case do not simply apply without justification in the other. Language that addresses the potential for abuse, such as coercion or undue pressure, can and should be provided in other ways.

Go to Idaho

Since all these flaws existed, why did I counsel my father to "go to Idaho"? Two reasons: First, a major virtue of the Idaho statute is that it explicitly states that it does NOT apply to persons who do not execute a Living Will. Nor does it affect the rights of patients, or those acting in their behalf, to give or to refuse to give consent for ANY medical care! In other words, the Idaho law explicitly affirms the common-law relationship between physicians and patients, which affirms the patient's right to refuse any and all treatment.

Second, the Idaho hospital in question has a well-worked-out "philosophy of health care" which respects patients' wishes and accepts a "non-aggressive approach" if the patient so desires.

Any Act Won't Do

I am not against "Living Wills," but what my research leads me to conclude is that much of the well-intended legislation in the form of "Natural Death Acts" actually erodes patients' rights and jeopardizes health care professionals.

These are strong statements. What support do I have for them? Regarding the "erosion of patient rights," my analysis of the Washington and Idaho statutes, if correct, should suffice, since the same or similar language is found in Natural Death Acts of most other states.[10]

How could such laws jeopardize health care professionals? As the previous discussion clearly indicates, the statutes do not address most situations where a Living Will is relevant. Does that mean that living wills are to be followed only under those conditions set out in the law? For instance, what are health care professionals to do in a case where the patient does not want certain interventions carried out but also refuses to follow the prescribed form, for whatever reason? Without a Natural Death Act the physician could follow the patient's wishes with a clear conscience. However, with the Natural Death Act in place, the physician/nurse/hospital can easily be in violation of provisions of the law. In fact, ingenious health care professionals, at considerable risk to themselves, devise ways to "get around" the specific provisions of the law. Some may latch on to this predicament as grounds to resist all legislative intervention. That does not follow, for it leaves the initial problem unsolved. Rather, what does follow is that great care must be taken as to the kind of legislation that we support.

Proposal for Hawaii

The problem that we are discussing is problem of "substitute judgment" in lth care. It is an age-old problem ich (outside of health care) is dealt h through Power of Attorney and rable Power of Attorney mechanisms. ch a solution is at hand with reference health care, in the form of a "Medical atment Decision Act." Such an act uld do three things — (a) legislatively ognize patients' rights to refuse treatnt, (b) provide a mechanism for urable Power of Attorney for Health re Decisions" and (c) provide a mechsm for "Living Wills."

The President's Commission for the dy of Ethical Problems in Medicine d Biomedical and Behavioral Research its report, Deciding to Forego Lifestaining Treatment, gives faint praise natural death act legislation. The rt says that the primary value of such islation is that it "provides the imtus for discussions between patients d practitioners." In the commission's w: "Durable powers of attorney are eferable to 'living wills' since they are re generally applicable and provide a tter vehicle for patients to exercise self-termination."[11]

However, the people of Hawaii would best served by legislation which proles for both vehicles. The "Medical eatment Decision Act" provides for itten instructions (Living Wills) in a nner which makes them legally bindg without a number of procedural comcations for the maker of the will. me of our citizens will have difficulty ciding who they would want to appoint their agent in a Durable Power of torney for health care decisions. There e many reasons for this, not the least which is the heavy burden that may be aced on the agent. These individuals uld be able to take advantage of the xibility of this legislation. On the other nd, those citizens who use the Durable wer of Attorney vehicle will have the st effective mechanism for ensuring at their wishes will be followed.

In conclusion, I urge physicians to join the effort to ensure that whatever bill awaii does pass, that it be one which ost closely approximates the commonw relationship between patients and ysicians; that it be an act that will not so narrowly defined as to erode pants' rights, jeopardize health care prossionals, and lead to more, rather than ss, litigation.

NOTES

1. Heintz LL: "Living Wills and Dying in Hawaii," *Hawaii Med Journal:* Jan. 1985, Vol. 44, No. 1, pp. 20-23.
2. See President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavorial Research, *Deciding To Forego Life-sustaining Treatment:* March 1982, pp. 382-87.

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evaluations done by "a friend of court," and the report is sent to court, paid for by the state, and is available to all parties concerned. This eliminates much of the conflict described above. In view of such an intense adversarial climate as exists in Hawaii, it is doubtful that this would be generally acceptable. It is commonplace for the attending physician to read the IME, recognize immediately who its author is and subsequently realize it is not a valid appraisal of the patient, but rendered only to place the "purchaser" who paid for the examination.

In many instances where the IME clearly fits the adversarial model, basic principles of medical ethics are violated. Many current IMEs in Hawaii violate at least the first two principles as outlined in the 1984 revised Ethics.[1, 2] Unquestionably, our patient suffers because he must go through the adversarial process on the way to court, thus losing respect and confidence in professionals, even in the physician of his choice. He sees himself victimized and exploited by the "system" rather than trying to be helped. The patient realizes the charade is carried out in the cause of monetary gains and his illness/injury has provided the "fuel" for the adversarial system's "fire." This blatant exploitation of the patient creates deep resentment within him, which often contributes to a delay in his recovery.

If this evaluation of the IME system in Hawaii is accurate, revisions of the process certainly are in order. The medical profession is dedicated to providing competent medical service with compassion and respect for human dignity; the legal profession aspires to "learn the truth" so justice can prevail. Perhaps these two can function together without the need to be adversarial.

If the Independent Medical Exam could be reported according to the following outline, it would convey meaningful information helpful to the plaintiff, his attorney, the insurance company and the treating physicians:

1—Identification of the problem and reason for referral.

2—Circumstances of the accident (patient's statements).

3—A summary of the medical records.

4—A complete medical history independently obtained from the patient by the examiner, to include the date of the IME.

5—A complete physical examination, including any laboratory or X-ray examinations not previously done that might provide additional pertinent information.

6—Clinical impressions, using standard current diagnostic nomenclature with

specific statements outlining the differential diagnoses and why the Independent Medical Examiner arrived at this opinion.

7—The IME's recommendations.

The report, according to the outline above, is to be written in a concise and specific manner that avoids unprofessional criticisms.

It is expensive, redundant and unnecessary for the Independent Medical Examiner to rewrite the details of all records presented to him for his review. References to these records in the IME is all that is needed. A list of do's and don'ts that should be helpful in writing the IME follow:

Do's

1—*Do* report specific remarks of the patient that are pertinent as well as your precise clinical observations.

2—*Do* clearly document each conclusion or diagnosis during the independent examination.

3—*Do* state clearly the fact if and when the signs and symptoms do not follow known clinical syndromes that indicate organic disease. If a functional overlay is suspected, suggest a referral for psychiatric evaluation and/or psychological testing.

Don'ts

1—*Don't* make critical remarks.

2—*Don't* make undocumented speculations about past treatment.

3—*Don't* speculate why there were treatment failures.

4—*Don't* report "hearsay" statements where the patient tells you what the doctor said. Often these are stated in the report "as fact" when it may have been grossly distorted. It is well known that in times of emotional stress, pain, etc., selective amnesia and poor recall rarely allow for accurate statements.

Summary

Under the system of the IME, the unethical adversarial position of the Independent Medical Examiner seems to occur too often in our state. Once the effect of this adversarial system creeps into the writing of the IME, medical ethics are ignored. Hopefully, these suggestions will be helpful to the select group of physicians who are known experts in Hawaii and who do the Independent Medical Examination. Instead, meaningful consultations would be most helpful to the attending physician and his injured or ill patient.

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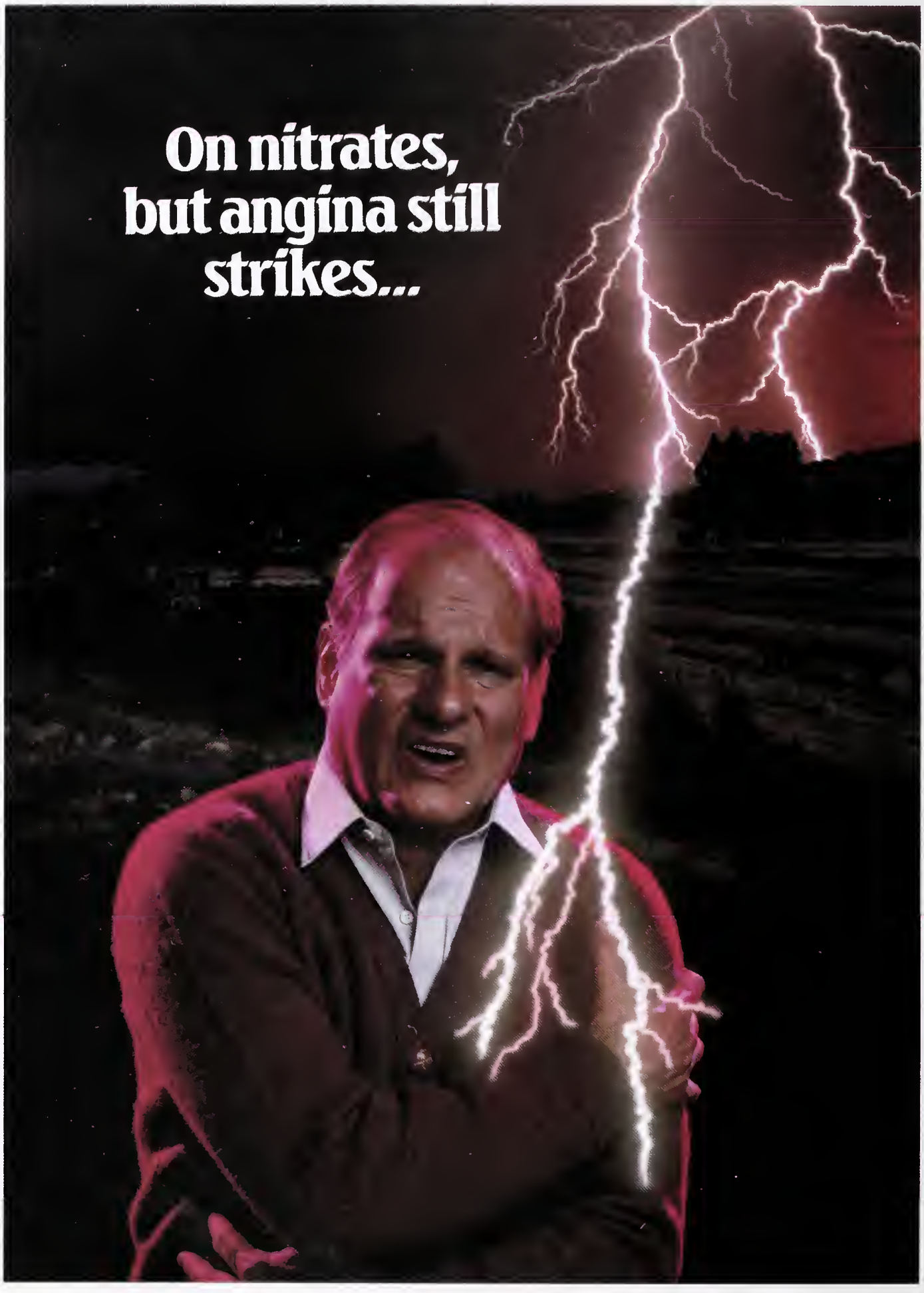
1. Principles of Medical Ethics, American Medical Association, 1984. Prepared by judicial counsel.
2. Davis HK, "The Art of Medicine," *The New Physician:* 12:6, pp. 181-228, 1963.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LOCAL ACCREDITED PROGRAMS
ONGOING

For a complete list of ongoing programs, please refer to the September 1985 edition of the HAWAII MEDICAL JOURNAL. Further information is available through the individual institutions or through the HMA's CME Department.

SPECIAL EVENTS

All special events should be confirmed with the CME program sponsors, as cancellations are not necessarily reported to the HAWAII MEDICAL JOURNAL.

Mar. 29-Apr. 5, 1986	Pediatric Emergencies, American Institute of Postgraduate Education, Edith S. Bookstein, Conference Management Associates, P.O. Box 2586, La Jolla, Calif. 92038, (619) 454-3212. Location: Kauai.
Apr. 4, 1986	The Challenge of AIDS: Learning Together, Life Foundation, Department of Health, and Hawaii Medical Association, David McEwan, MD, 550 S. Beretania St., Honolulu 96813, (808) 537-2211. Location: Ala Moana Hotel, Honolulu.
Apr. 5-12, 1986	Drug Therapy, University of Washington School of Medicine, Continuing Medical Education, Health Sciences Center E-303, Seattle, Wash. 98195, (206) 543-1050. Location: Sheraton Princeville.
Apr. 12-19, 1986	Pediatrics 1986, Current Concepts, University of Washington School of Medicine, Continuing Medical Education, Health Sciences Center E-303, Seattle, Wash. 98195 (206) 543-1050. Location: Sheraton Kauai.
Jul. 7-12, 1986	XVIII International Congress of Pediatrics, American Academy of Pediatrics, 141 Northwest Point Rd., P.O. Box 927, Elk Grove Village, Ill. 60007, (312) 228-5005. Location: Honolulu.
Jul. 13-16, 1986	Allergy and Clinical Immunology for Primary Care Physicians, R. Michael Sly, MD, Children's Hospital National Medical Center, 111 Michigan Ave. N.W., Washington, D.C. Location: Hilton Hawaiian Village.
Aug. 1-6, 1986	Presymposium Workshop (in association with Aug. 10-15 symposium), Southern California Neuropsychiatric Institute, Stacey W. Grace, Associate Program Director, 6794 La Jolla Blvd., La Jolla, Calif. 92037. Location: Stouffer Wailea Beach Resort, Maui.
Aug. 10-15, 1986	XIII Annual Mauna Kea Symposium, Asian/Pacific Folk Healing and Occult Practices, Southern California Neuropsychiatric Institute, Stacey W. Grace, Associate Program Director, 6794 La Jolla Blvd., La Jolla, Calif. 92037. Location: Mauna Kea Beach Hotel, Big Island of Hawaii.

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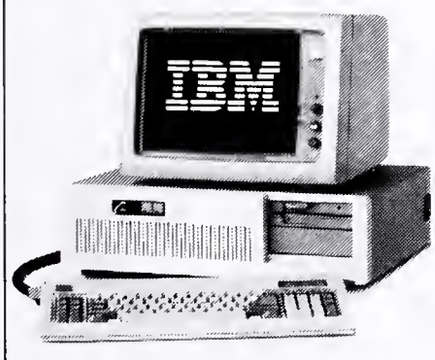

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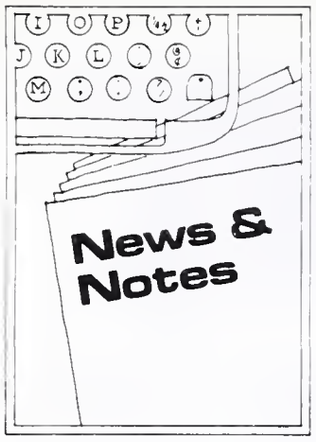


Henry N. Yokoyama, M.D.

Life in These Parts

Young K. Paik, director of the Parentage Testing Lab at St. Francis Hospital, says "an epidemic increase in illegitimate births" is keeping his laboratory busy determining paternity. Ten years ago, there were 1,943 illegitimate births in Hawaii, or 12% of total births in the state. Last year, 3,597 children were born to single women, or 19% of all births. Young Paik says the lab is capable of excluding at least 95% or more of falsely accused men. When the initial studies do not exclude a man, further testing is done with a computer that compares various components of the blood from the child, the mother and the alleged father. Ethnic factors and genes are studied and the conclusions are based on the principle that the child inherits genetic markers from each of the true parents.

St. Francis Hospital has renamed its multifaceted renal disease program (viz the 20-year-old artificial kidney program started in1965 and its transplant program started in 1969) as the **Renal Institute of the Pacific. . . .**

The Feds want Hawaii to repay $10.2 million in state excise taxes collected on food stamps through the Medicaid program retroactive to 1979. Earl Motooka, state Medicaid administrator, says Hawaii is appealing. . . .

Bradford Cohn, a California pediatrician-lawyer, says the malpractice insurance benefits may worsen. Patients are more willing to sue these days; juries are awarding larger settlements; and there is a social tendency to favor the injured party even in the absence of negligence.

But Thomas Goddard, a lawyer with the Association of Trial Lawyers in America, disagrees: "The number of malpractice claims hasn't tripled and juries aren't giving away awards. The crisis is linked to the losses experienced by the property-casualty industry. When that insurance industry has a drop in investment income, it compensates by raising rates in other areas."

Cohn says, "Many of those who sue doctors don't realize that about one-third of the money awarded goes to the injured party, and two-thirds goes to the lawyers and the insurance carrier. . . ."

The Atlanta-based Center for Disease Control reported on research at The National Cancer Institute and at the University of Hawaii's Cancer Research Center, that the results of a study of 2,956 women with breast cancer showed Japanese women in Hawaii had the highest survival rate five years after diagnosis. Hawaiians and part-Hawaiians had the lowest survival rate. Chinese women were 18% more likely to die of breast cancer than Japanese women. The rate for Caucasian women was 34% higher than for Japanese women; 124% higher for Filipinas and 151% higher for Hawaiians and part-Hawaiians. The information was gathered from the Hawaii Tumor Registry for the period between 1960 and 1979.

Hawaii is one of 17 clinical trial centers involved in SHEP (Systolic Hypertension in the Elderly Program). The principal investigator for the project in Honolulu is J. David Curb, associate professor at the UH School of Public Health. The project is associated with the Pacific Health Research Institute, supported by the National Heart, Lung and Blood Institute and the National Institute on Aging. It will study 300 volunteers over a five- to six-year period. . . .

Honolulu ENT man Kazuo Teruya performed Hawaii's first Ineraid implant, an investigational procedure not yet approved by FDA, for sensory deafness. The Ineraid device is manufactured by Symbion Inc., which developed Jarvik 7. The entire procedure plus the artificial ear costs $20,000 and is limited to those 18 years and older who learned to speak before they lost their hearing. . . .

In January, the 300th corneal transplant was done in Hawaii. Ophthalmologist Gilbert Yamamoto, one of several eye doctors who have patients on the waiting list for transplants, says the transplant should be done immediately when a cornea becomes available through the Makana Foundation and the Hawaii Lions Eye Bank, because corneal tissue can be kept for only five days. Don Pietz of the Eye Bank reports 41 people waiting for corneal transplants. . . .

The Pacific **In Vitro Fertilization Institute** (Benton Chun, Thomas Kosasa, Philip McNamee, Carl Morton, Francis Terada and embryologist Thoma Huang) successfully delivered its first "Test Tube Baby," a perfectly healthy Janice Low, on Dec. 21. Several other women fertilized at the institute are expected to deliver this year. . . .

Back before Christmas, the research husband-wife team of Nathaniel and Clara Ching had started their interleukin-2 project with blood drawn from patients with lung and breast cancers. Researchers at the NCI have reported success in treating 11 of 25 cancer patients on whom all the conventional forms of therapy had failed. . . .

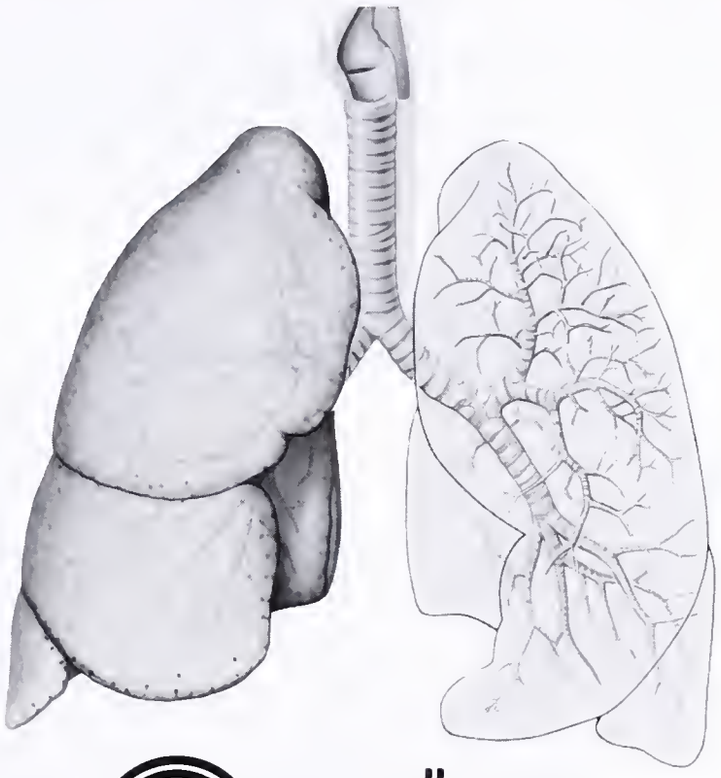
In December, Paul Stevens and his Molokai Clinic of six physicians were faced with a fourfold increase in the clinic's malpractice insurance premiums. To allow the policy to lapse would mean automatic loss of privileges — including the ability to admit patients at Molokai General Hospital. Last December, the group terminated its obstetrics insurance because of the high rates and a midwifery program was begun in July at the hospital. . . .

Right to Die

(Continued from page 107)

3. See "No Code Orders Guidelines" and "No Code Flow Chart" of Tri-State Memorial Hospital, Inc., Clarkston, Wash., pp. 1-9. See Memorandum to Hospital Administrators from Wash. State Hospital Association. legal counsel, 1-7-58, pp. 1-13. Seattle, Wash.
4. Schloendorf: Society of New York Hospital. 211 N.Y. 125, 127, 129; 105 N.E. 92, 93 (1914).
5. Natenson v. Kline. 186 Kan. 393, 350 P. 2d 1093 (1960), rehearing denied, 187 Kan. 186, 354 P. 2d 670 (1960).
6. The case of William Bartling, California 1985, centered on these very restrictions. In that case Glendale Adventist hospital argued that the California Natural Death Act precluded removal of respiratory support because Bartling was not certified as terminally ill. The hospital prevailed in lower courts but eventually lost in the Court of Appeal after Bartling was dead. My point here is that many, if not most, Natural Death Acts are subject to interpretations which abridge the patient's legal right to control his/her own medical treatment.
7. This is provided that nurses and physicians are following the law. In fact it is routinely the case that physicians and nurses "work a way around" the law and hospital policies at great risk to themselves.
8. See President's Commission, pp. 340-344.
9. Ibid., p. 342.
10. Nineteen of the 24 statutes that I reviewed had such language. The laws reviewed where those of Alaska, Ark., Calif., Del., Washington, D.C., Fla., Ga., Idaho, Ill., Kansas, La., Miss., Nevada, N.M., N.C., Oregon, Texas, Vt., Va., Wash., W. Va., Wis., and Wyo. In addition, the "Model Bill" sponsored by the Society for the Right to Die contains the same language.
11. See President's Commission, p. 5.

Consider the causative organisms...



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H. influenzae, *H. influenzae*, *S. pneumoniae*, *S. pyogenes*
(ampicillin-susceptible) (ampicillin-resistant)

Brief Summary Consult the package literature for prescribing information

Indications and Usage Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae* and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS INCLUDING ANAPHYLAXIS TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins), therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions *General Precautions* — If an allergic reaction to Ceclor® (cefaclor, Lilly) occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy — Pregnancy Category B — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers — Small amounts of Ceclor® (cefaclor, Lilly) have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor is administered to a nursing woman.

Usage in Children — Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain — Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic — Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[061782R]

Note Ceclor® (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

Additional information available to the profession on request from Eli Lilly and Company Indianapolis, Indiana 46285

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Hawaii Medical Journal

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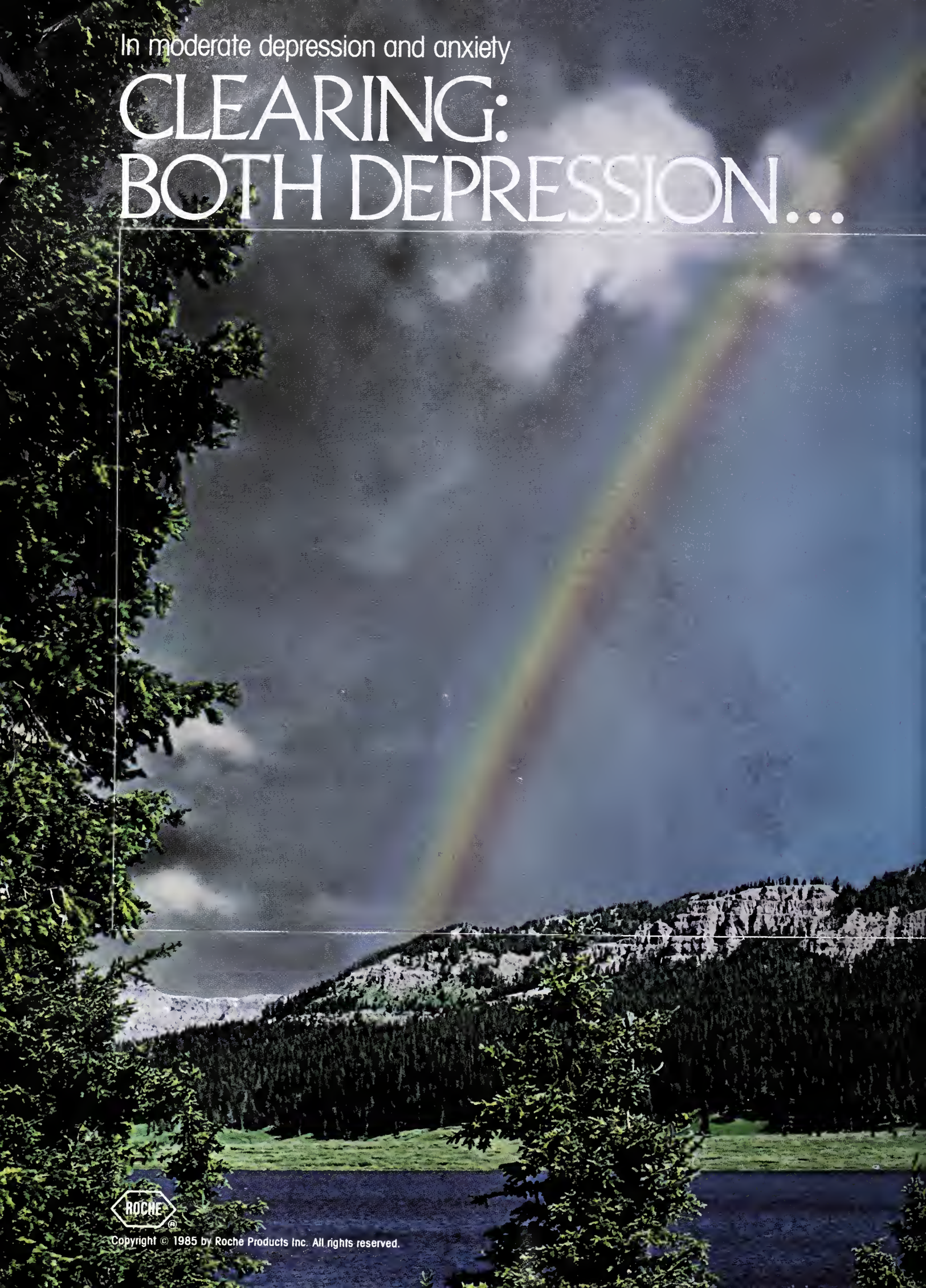

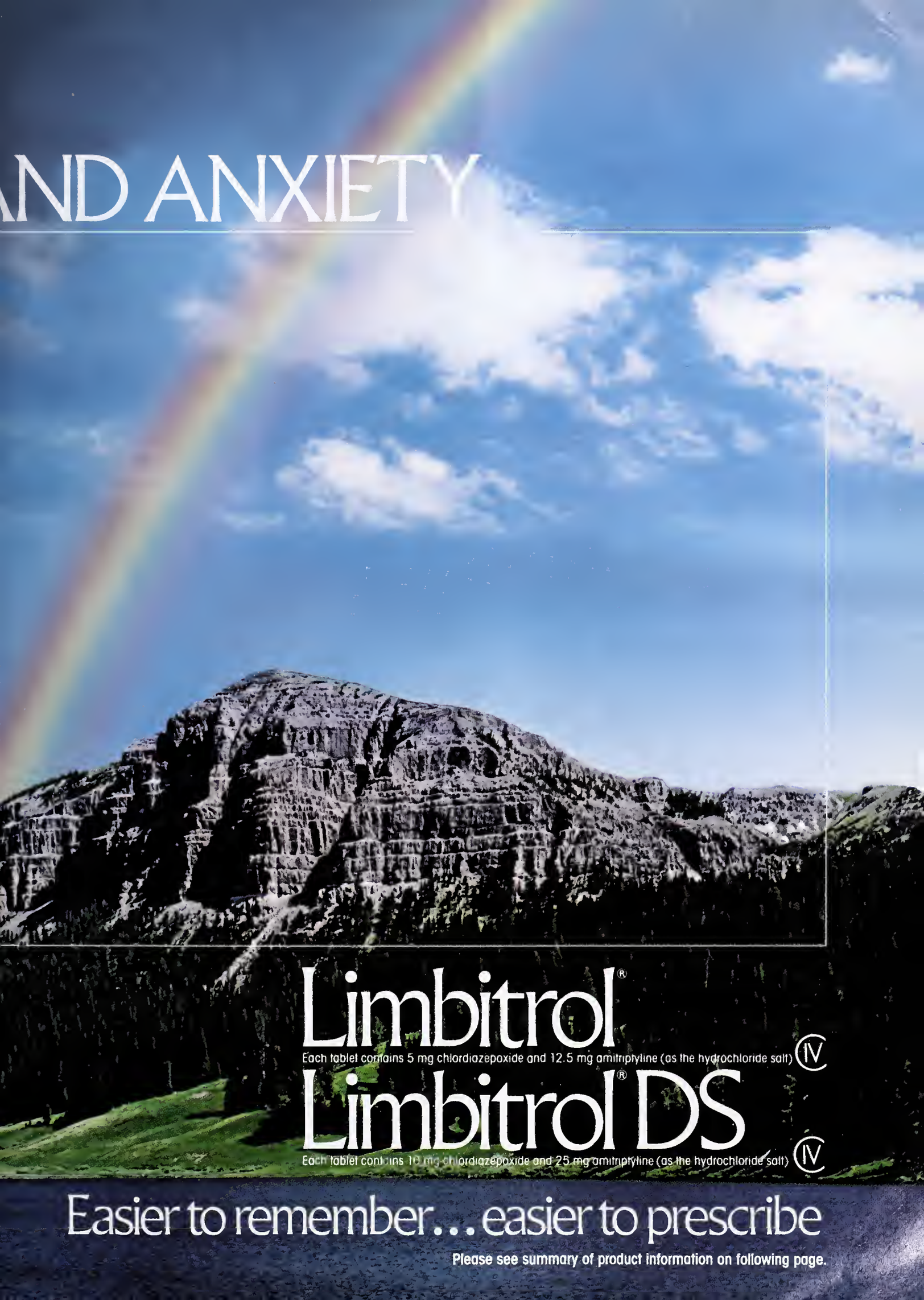
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The HMA President's Message: Making a Bankrupt System Work

The doctors of America deserve a generous round of applause. No, in fact, they deserve a standing ovation for the efforts made by organized medicine to make a bankrupt system work. I am writing, of course, of the federal Medicaid program.

Stodd

Congressmen made promises with glorious speeches and presentations, then passed laws, and said that all would have access to the finest medical care. The old system of state and community provision for the indigent with such unpleasant words as "relief" and "welfare" would become history. America could provide for the poor, and we would have no more underprivileged patients, no more two-tiered system.

But, in what has become typical fashion, the Congress and the Administration have repeatedly decided the cost was too high. The answer: Simply squeeze the providers. Hit the doctors and the hospitals in their consciences, and pay them about half of what they should receive for their work. To this date, the scheme has worked.

One would expect the Medicaid division of Health and Human Services to come forth with compliments. Getting by on the generosity of doctors and hospitals should cause the planners and administrators, the Congressmen and the bureaucrats alike, to issue frequent news releases with songs of praise. After all, without the benevolence of cooperating providers, this underfunded, flatulent, overregulated program would collapse. It works for only one reason: organized medicine has accepted the Congressional mandate that everyone is entitled, has an *a priori* right, to the finest we can give. As thinking, caring, dedicated physicians we must believe that, and so we make a bankrupt system work. Of course, as we all know, many providers refuse to help, and they can hardly be faulted. Their argument is simple: Medicaid is a bankrupt system, and the longer we make it work, the longer it will take politicians to face the facts. In addition, many say they simply cannot afford to provide care for less than half a normal fee.

To make the situation worse for Medicaid, the attorneys providing advice have a mindset about cheating. In order for hospitals to receive their reduced payment, the physician must sign an egregious statement denying criminal intent. In addition, each physician provider must sign a document allowing investigators to come into the medical office at will to inspect records, receipts, ledgers, charts, or whatever. So, in return for cooperating to make a woeful system survive, the providers do not receive gracious and deserved gratitude, but instead expose themselves to abusive investigation and grossly inadequate reimbursement. Medicaid is a bankrupt system, but it can afford a special fraud unit which can and has taken immense liberties in investigating providers.

To say that something must be done about this travesty is mild condemnation. What Medicaid requires is a complete restructuring with appropriate physician guidance, discharge of layers of ribbon clerks, flushing of the fraud unit, and ample funding.

The current status of Medicaid with regard to provider participation is pretty dismal, but the future is really bleak, unless wise action is promptly undertaken.

Russell T. Stodd, MD
HMA President

Sigmoidoscopy on Kauai

We are delighted to publish a gem of mini-research from neighboring Kauai. There are some real medical scientists on that island who also have an eye out for their patients' better health, the public's health, and also have sympathy for the state of their patients' pocketbooks, as well. We are referring to the article in this issue by Robert S. Weiner, MD: Free flexible sigmoidoscopy on Kauai. Facetiously we say: Kauai docs have one eye open for the public's health and t'other up a sigmo!

We are reminded of surgeon John Withers' excellent article on colon cancer that appeared in the Cancer Coordinator Newsletter of Sept./Oct./Nov. 1984. Withers too is from a Neighbor Island — Maui. He stressed the use of the stool Guaiac test as a preliminary to instrumentation. That test is so easy to do and can be in the armamentarium of any practicing physician no matter what his or her specialty. Simply the gloved finger up a patient's anal orifice and a smear onto a hemoccult strip, which is then quickly tested by the nurse, will tell the physician a lot. It is difficult for us to understand gynecologists, for example, who are already in a position to examine a neighboring orifice, yet do not do the Guaiac test on every women over 40. Is it because it is unethical for them to invade another's field?

The least suspicion of a positive result can then be followed by having the nurse issue a six-smear packet with instructions for the patient to follow at home in terms of several days of a strict diet, withholding of all medications including the OTCs, and then making smears on three separate days. The patient returns the packet to the physician's office, where the nurse quickly tests and reports to him the results. The patient does most of the work; the doctor hardly any and the nurse only a bit more.

Persisting positivity is a warning flag for the physician to proceed to rule out whatever might be the cause of the bleeding.

Despite the greatly improved ease of flexible sigmoidoscopy and greatly lessened discomfort to the patient, a lot of patients have an unreasoning dread of the procedure, especially those who have undergone a previous examination with the old rigid instrument. However, the positive evidence of a stool Guaiac presented to such patients is enough to scare and convince any recalcitrant individual that peaceable submission is the way to go. There is nothing like blood from any orifice, to make a Christian (Buddhist, Moslem or what have you!) out of a lay person.

The American Cancer Society, Hawaii Division, is also to be commended for its quiet and effective educational effort in all the Islands, and particularly on Kauai as a sponsor of this screening project that Bob Weiner reports on here in the JOURNAL.

J.I. Frederick Reppun, MD

Benefits of Modern Medicine

CASE REPORT: An octogenarian widow had a severe and chronically painful degenerative arthritis of one hip, such that it bothered her sleep and kept her housebound. A total hip joint replacement was done at a Honolulu hospital and the result was beyond her most hopeful expectations.

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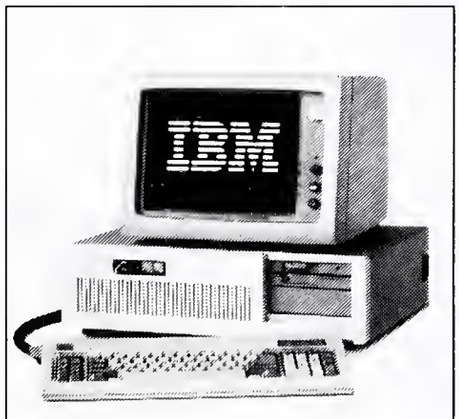

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She now walks with a cane but without a limp or pain, although still limited in time and distance. What's more, she now gets a restful night's sleep. Life is once more worth living; her repeated expressions of gratitude verge on being embarrassing in their effusiveness.

The cost: Nine days in hospital — the bill greater than $10,000, which comes to more than a thousand dollars a day.

Was the patient sickened by this anew? Not at all. She was smiling as she reported that between Medicare and HMSA it was all taken care of and she did not have to pay anything out-of-pocket.

Knowing her background of illiteracy (although she is high in native intelligence), it seemed obvious to us that she had no conception of — or rather that she had no concern about — the fact the she and all the rest of us are footing that bill.

In view of the remarkable success of "modern" medicine and surgery, we shouldn't decry or belittle this inestimable benefit in one already beyond her life expectancy, this one individual among the 230 million persons in our society. This benefit should not be denied to anyone, whether such a receiver lives 10 more days or 10 more years. Therefore, let's not grouse about the cost.

Eli Ginzberg, Columbia University economist, was reported in The Honolulu Advertiser nearly a year ago (5/25/85) as predicting:

1—The number of MDs will continue to go up;

2—Their incomes will go down;

3—Hospitalization rates will not go up *(not much?/Ed);* therefore, many hospitals will merge with each other and many will close their doors; some will convert to being nursing homes;

4—Patients' visits to physicians will decline; therefore, there will be fewer of the traditional doctors' offices around;

5—Young "new" MDs will be joining group practices and HMOs; and

6—Physician competition with hospitals will increase.

We suggest you photocopy or clip out these six prophetic statements, put them under your desktop glass, look at them once a year at the time you get your heel bone density scan and then see if they are prophetic and which curve declines the fastest.

To get back to our lady and her "new" hip joint: William Schwartz, MD, of Tufts School of Medicine, of the Rand Corporation and of the Brookings Institute, sees the future of medicine as being more grim than does Ginzberg. Schwartz is also reported in the Advertiser article as saying that such candidates for hip surgery will be rationed or denied the benefit in the future.

We hope not. Full speed ahead and damn the nuclear missiles!

J.I. Frederick Reppun, MD
Editor

Medical Ethics

It is indeed high time that the University of Hawaii School of Medicine include in its curriculum more than just a lecture or two on ethics in the practice of medicine.

Bernice Coleman, MD, chairman of the HMA Committee, presented to the Council at its March 7 meeting a proposal that HMA encourage UH medical school Dean Terry Rogers to institute a semester ethics course during the fourth year. Unfortunately, the item passed over the heads of those present, so no action was taken, perhaps because Coleman wanted HMA to fund distribution of literature and materials on the subject to all the medical students, i.e. costing dollars.

The phrase "medical ethics" in the eyes of the general public — our patients — is often taken to mean some sacred rules that prevent doctors from doing certain things for their patients — patients assume the rules pertain to them, the patients. Doctors then need to explain that these rules apply to how doctors deal with each other and that the patient is free to do and act as he or she wishes governed simply by courtesy and considerateness. For example, a patient is referred to a consultant, who then proceeds to take over as if the consultant becomes the primary physician. The patient becomes confused and doesn't know who is in charge and goes along with the consultant perforce. The patient has freedom of choice but cannot choose because he thinks "medical ethics" forbid him from doing so.

The ethics in that situation are the game rules that govern the relationship between the PMD and the consultant, which should be obvious to all physicians and in which they should be thoroughly indoctrinated as a part of their training.

The observant patient quickly picks up on the lack of such ethics and sometimes this is a seed from which grows a malpractice suit!

We hope Bernice Coleman will not be dissuaded from bringing the matter up to Council again.

HMA President Russ Stodd was glad that HMA member Paul Stevens of the five- to six-person Molokai Clinic has formally requested help from HMA anent the group's problem with medical malpractice, the Molokai hospital and DSSH. Stodd is appointing an ad hoc Investigating Committee to do some research and to report back both to HMA and to MCMS. The allegation that the doctors of Molokai may be forced not to accept DSSH clients as their patients (said to be in the preponderance of that Friendly Island's population) may be a violation of "medical ethics."

Cal Sia reported to Council that the $29,000 grant received through DSSH for the "Baby Doe" project will be used mainly to set up "ethics committees" in the 19 hospitals in Hawaii and start them functioning as resource centers to which such cases can be referred as they come up. HMA will be the coordinating (appeals?) body. The money is for one year only. "Hopefully," said Sia, "the functioning of these hospital committees will continue on their own, or with state or local funding, as the need becomes demonstrably(?) of value to each community."

J.I. Frederick Reppun, MD
Editor

Re: December HCMS Board of Governors Bulletin Article by Frank A. Rogers, MD

I heartily applaud you for including Dr. Frank Rogers' summary points regarding PPOs in the HCMS Board of Governors' Bulletin. Although the article was somewhat one-sided against PPOs, I feel that it is very important for all physicians to be aware of this very important subject from the con side. Publishing this type of article goes a long way toward supporting the traditional doctor/patient relationship that has been nurtured over time since the Greeks.

Doctors, often being notoriously poor businessmen, can easily be sold a bill of goods by potential promoters of PPOs that destroy the doctor/patient relationship and instead substitute an organization/doctor/patient relationship.

Three cheers for the Bulletin in publishing this point of view and I hope it is the first of many more such stands.

Chet Nierenberg, MD
Honolulu Sports Medical Clinic, Inc.

Presentation of the Isochromosome Trisomy 18 Syndrome in an Infant with the Robin Anomalad

Thomas E. Wiswell, MD, MAJ, MC*
R. Glenn Edwards, MD, CPT, MC*

We describe a newborn infant with the isochromosome trisomy 18 syndrome and review reported cases. This infant presented at birth with clinical features of the Robin anomalad, requiring a tracheostomy the first day of life.

Subsequent examination revealed phenotypic features of trisomy 18. His karyotype disclosed an isochromosome for the long arm of chromosome number 18: 46,XY,i(18q).

Clinical features of this karyotype, as well as aspects of isochromosome formation and the Robin sequence, are discussed.

Introduction

We recently cared for an infant with an isochromosome for the long arm of chromosome number 18: 46,XY,i(18q). This is a rare chromosomal defect which has been infrequently reported.[1] At birth the child presented with features of the Pierre Robin sequence, complicated by severe respiratory compromise. Further examination revealed features of the trisomy 18 syndrome. We review the clinical features of this condition in order to familiarize physicians with the syndrome and pertinent aspects of isochromosome formation and in order to emphasize the frequent association of the Robin anomalad with genetic syndromes or other malformations.

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Case Report

A 1,900-gram male infant was born at 38 weeks gestation to a primipara following a pregnancy complicated by polyhydramnios and premature rupture of membranes. Following vaginal delivery, the child was noted to have severe micrognathia, glossoptosis, and a cleft palate. The degree of posterior airway obstruction was such that a tracheostomy had to be performed on the first day of life. (See Figure 1.) The child was subsequently found to have multiple other anomalies. These included: A prominent occiput; flattened pinnae with low-set, posteriorly rotated ears; bilateral epicanthal folds; multiple flexion deformities of the fingers; clenched hands with overlapping index and fifth fingers; simple arch dermal ridge pattern on eight digits; nail hypoplasia; a shortened sternum with a pectus excavatum deformity; patent ductus arteriosus; cryptorchidism; and "rocker-bottom" feet. The infant developed both focal and generalized seizures. He had numerous spells of apnea and died at six weeks of age. Blood for chromosomal analysis was obtained the second day of life. Chromosomal analysis was performed from whole blood cultures according to standard methods. The karyotype was interpreted as that of a male with an isochromosome for the long arm of chromosome 18: 46,XY,i(18q). (See Figure 2.) Karyotypes of the parents were found to be normal.

Discussion

Isochromosomes are rare chromosome anomalies. This structural alteration has been reported most frequently for the long arms of the X chromosome.[2] However, a few cases with isochromosomes of the autosomes have been reported.[3]

An isochromosome is a metacentric chromosome in which both arms are of identical size and homologous genetic composition. Isochromosome formation is believed to arise from misdivision of the centromere at the beginning of anaphase.[4] Transverse division of the centromere, instead of the usual longitudinal division, results in the formation of unstable telocentric chromosomes.

These may be subsequently converted to isochromosomes in which the isologous long arms of both sister chromatids are attached to one cen-

tromere and the short arms to the other. (See Figure 3.) As a rule, isochromosomes with duplicated short arms fail to survive. Therefore, the usual isochromosome seen consists of complete duplication of one arm (usually the long one) and complete deficiency of the other arm. Interestingly, there have been several descriptions of supernumerary isochromosomes for the short arm of chromosome 18.[5, 6]

Trisomy 18 (Edwards' syndrome) is a well-known cytogenetic syndrome. The vast majority of cases result from trisomy for the whole of chromosome 18. However, partial trisomies are also known.[7, 8] In general, the degree of phenotypic expression is directly proportional to the amount of additional long arm material that is present.[7, 8] Thus, Edwards' syndrome is primarily due to the presence in triplicate of genic determinants on the long arm of chromosome 18.

FIGURE 1.

Craniofacial features of the child demonstrating the severe micrognathia with tracheostomy in place; low-set, posteriorly rotated ears with flattened pinnae; flat nasal bridge; and prominent occiput.

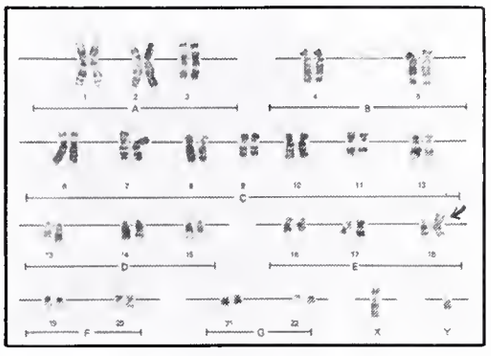

FIGURE 2.

Chromosome analysis performed on a phytohemagglutinin-stimulated peripheral blood culture with the aid of G-banding (performed by the Armed Forces Institute of Pathology Cytogenetics Laboratory). One chromosome 18 is replaced by a medium-sized metacentric chromosome, the isochromosome of the long arm of a chromosome 18 (arrow).

TABLE 1.

Clinical Features of Isochromosome Trisomy 18*

Feature	Current Case	Bass[1]	Rhode[9]	Muller[11]	Larson[12]
Prominent Occiput	☆	☆	☆	☆	
Micrognathia	☆	☆	☆	☆	☆
Cleft/arched palate	☆		☆	☆	☆
Glossoptosis	☆		☆		
Low birth weight	☆		☆	☆	
Flat nasal bridge	☆	☆		☆	
Tone abnormalities	☆	☆		☆	
Malformed ears	☆	☆	☆	☆	☆
Dermatoglyphics: >5 simple arches	☆	☆		☆	
Flexion deformities or overlapping fingers	☆	☆	☆	☆	☆
Rocker bottom feet	☆	☆	☆		☆
Limited hip abduction	☆	☆	☆		☆
Genital anomalies	☆		☆	☆	
Widely spaced nipples		☆	☆	☆	
Congenital heart disease	☆	☆	☆	☆	☆
Pectus excavatum	☆		☆		

*The current case and those of Bass[1] and Rhode[9] all had 46 chromosomes with one isochromosome of the long arms, while the cases of Muller[11] and Larson[12] had 47 chromosomes with two isochromosomes each (one of the long arms and one of the short arms).

There have been two other reported cases of infants with 46 chromosomes and an isochromosome for the number 18 chromosome.[1, 9] Bass, et al,[1] felt that their patient also demonstrated features of the 18p-syndrome (degressed nasal bridge, round face, short, webbed neck, low posterior hairline, and widely spaced nipples), which they attributed to the lack of one set of short arms. However, several of these features may also be found in trisomy 18.[8, 10] Features of the 18p-syndrome were found neither in the current case nor in that of Rhode, et al.[9]

Two additional reports describe infants with 47 chromosomes in which two isochromosomes are present, one consisting of the long arms and one made up of the short arms for the number 18 chromosome.[11, 12] The short arm isochromosome in these cases apparently survived. The phenotypes from all five patients are similar. Clinical features of these infants are noted in Table 1.

The association of micrognathia, cleft palate, and glossoptosis has been designated as the Robin sequence (Pierre Robin syndrome).[10, 13] The anomalad can be an isolated defect or represent one feature of many different syndromes. Approximately 60% of affected children will have either known genetic syndromes (25%) or other malformations (35%).

Several reviews have delineated the conditions associated with the Robin sequence.[13-15] The only reported associated chromosomal syndromes are those of trisomy 11q and the 4q deletion.[14, 15] It is not surprising that an infant with the phenotypic features of trisomy 18 should present with the Robin malformation anomalad, since micrognathia and cleft palate are common features of the phenotype.[7, 8, 10]

Most infants with trisomy 18 are severely defective. Few survive childhood. In this case, a tracheostomy was performed on the child before the diagnostic possibility of trisomy 18 had been raised. Neonates who are felt to have the Robin sequence should be examined closely for other dysmorphic features. The extent of therapy and support may depend on whether or not a lethal chromosomal malformation is present.

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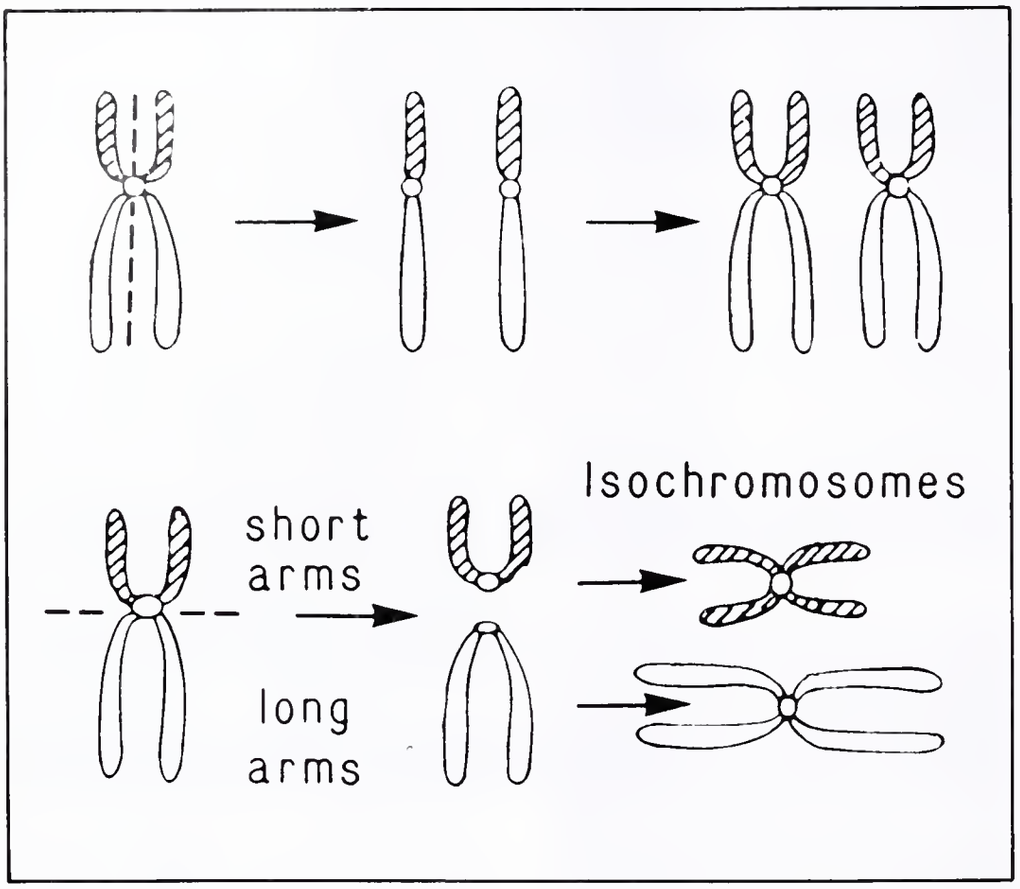
FIGURE 3.

Diagrammatic representation of the formation of isochromosomes. The upper figure depicts normal longitudinal division and the lower figure demonstrates aberrant transverse division at the centromere with resultant isochromosome formation.



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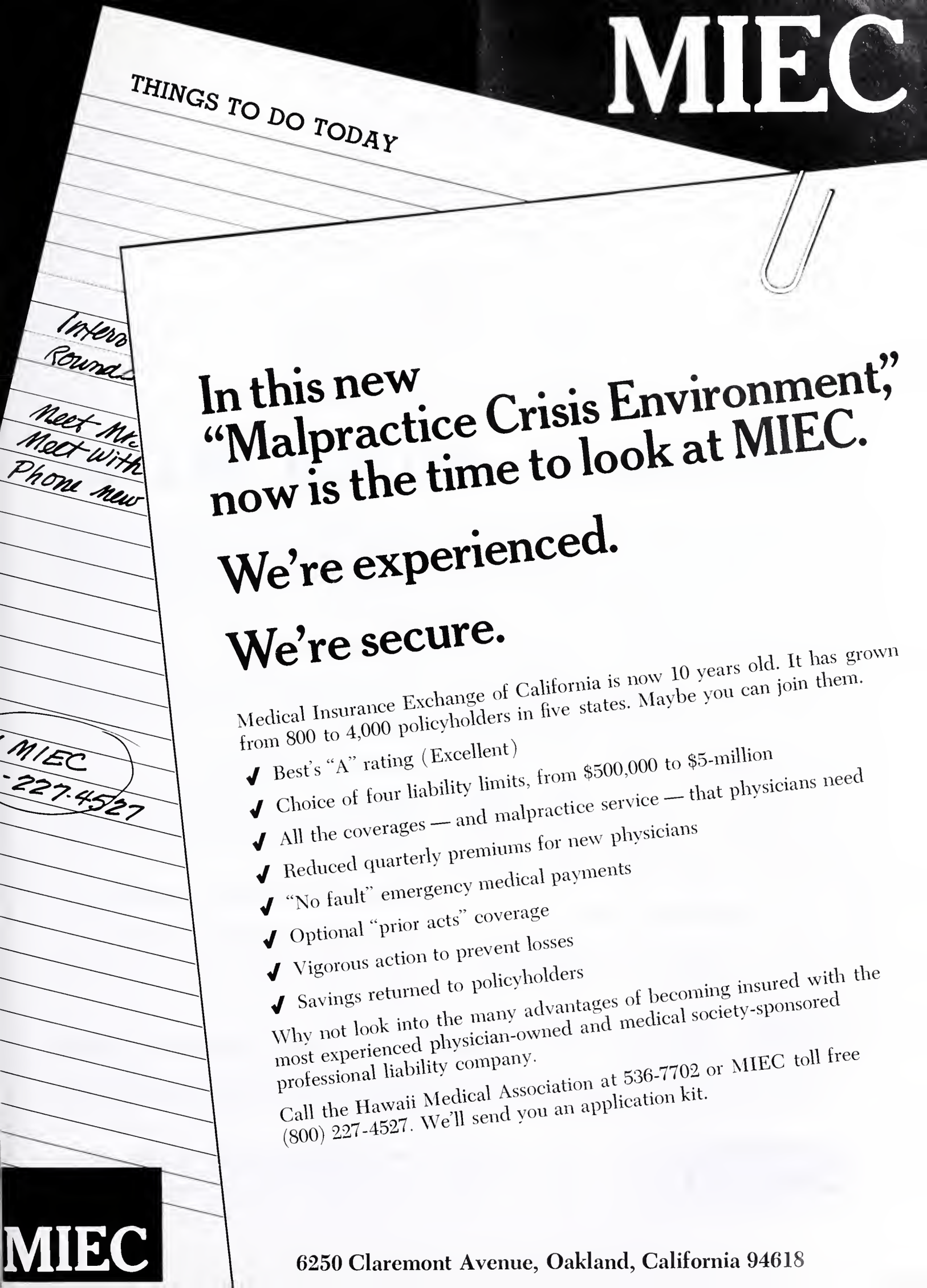
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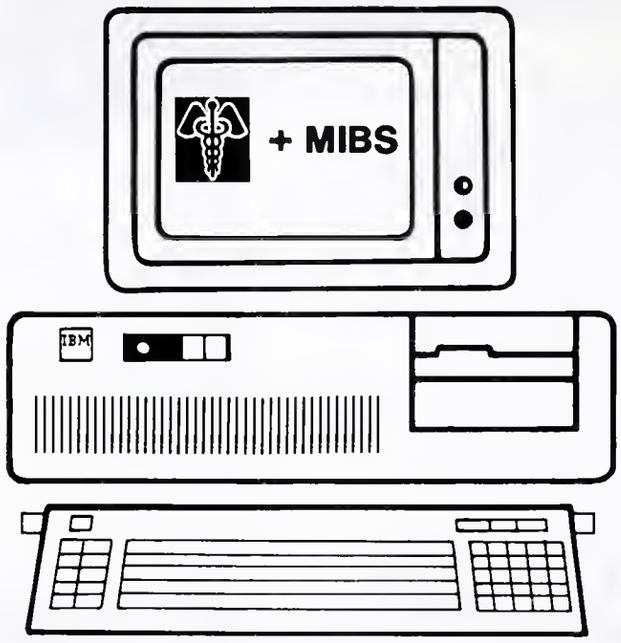

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Free Flexible Sigmoidoscopy on Kauai

Robert S. Weiner, MD

In the fall of 1984 several Kauai physicians, in conjunction with a program promoted by the Kauai Unit of the American Cancer Society, began to perform, at no charge, flexible sigmoidoscopic examinations of asymptomatic persons over the age of 50.

*Initially this program was sponsored in part by two hospitals on Kauai and by a grant from the Elsie H. Wilcox Foundation. The physicians volunteering their services all had privileges in colonoscopy at Wilcox Hospital and Kauai Veterans Memorial Hospital.**

All persons reporting for the exams were asked to fill out information on a 5x8 card indicating their name and address and their private medical doctor (PMD) or clinic. They were then asked to answer yes or no to several questions relating to symptoms of colon pathology such as rectal bleeding, change in bowel habits, prolonged constipation or diarrhea, etc. The bottom of the card was reserved for exam results, such as the extent of the colon examined and any positive findings. Copies of these cards were forwarded to the individuals' PMD, and the "screenees" were notified of any positive findings such as polyps and urged to make an appointment with their physician. In most cases the regular physician was then also contacted by phone.

The American Cancer Society publicized this program on Kauai by means of letters and referral forms delivered to all primary-care physicians on the Island. The program was further directly projected to the target group by means of lectures to employee groups and senior citizen organizations and by newspaper articles.

It was not the purpose of this program to determine the value of sigmoidoscopic screening in persons over the age of 50. That had already been adequately established in large studies done by Gilbertsen, Winawer and others.[1,2] After the first five months, the results of 457 examinations in the Kauai program were collected; polyps were detected in 47 persons.

Most of these proved to be adenomatous polyps and were removed by colonoscopic polypectomy on Kauai. In addition, one Duke's A carcinoma of the descending colon and one large rectal villous adenoma were discovered; these were referred out for appropriate therapy. These results are similar to figures appearing in the published literature. Subsequent review of our Kauai experience showed that we found polyps in approximately 10% of the persons screened.

The main purpose of this program was to establish flexible sigmoidoscopy as an ongoing screening procedure on Kauai. In this effort we have been successful to the extent that free flexible sigmoidoscopy continues to be offered at three private clinics on Kauai. All persons responding to repeated appeals by the American Cancer Society, Kauai Unit, are examined at these clinics, which receive no direct reimbursement for these services. There has been, of course, an increased detection of colon polyps and other pathology. When these patients are referred for more definitive diagnosis and treatment they or their insurance carriers are billed in the standard fee-for-service manner. In the case of patients who have a prepaid medical insurance plan in effect, all parties involved seem delighted that the removal of the precancerous adenoma at outpatient endoscopy takes place, rather than risking serious hemorrhage or the possibility of invasive carcinoma later.

To date, we have screened more than 1,200 persons with flexible fiberoptic sigmoidoscopy on Kauai at no charge. The patients are examined to the extent that their comfort and the preparation with two Fleets enemas will allow. Most examinations are to 60 cm, or up into the descending colon. Often the splenic flexure or even transverse colon can be reached, because some examiners are using full-length colonoscopes for these "sigmoidoscopies." There have been no complications so far and the few patients who have previously experienced rigid proctosigmoidoscopy have expressed surprise at the absence of discomfort when flexible instruments are used. Furthermore, no physician on Kauai has expressed anything other than satisfaction with this project, since all reports to PMDs and referring physicians are timely and made in accordance with established medical ethics. All qualified physicians in the community are given an equal opportunity to participate in the program.

After each sigmoidoscopy the patient is given a copy of the American Cancer Society guidelines for periodic examinations in asymptomatic persons. The patient is advised to return for a repeat examination in one year, and then again every three to five years if the exam remains negative.

At present, we hope to expand this program by teaching flexible sigmoidoscopy to a few highly motivated primary-care physicians. Ultimately we would hope that all persons over 50 will seek this type of examination as part of their routine medical care.

*Paul Arrington, MD, Robert Hamblin, MD, Thatcher Magoun, MD, Neal Sutherland, MD, and Robert S. Weiner, MD.

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HMSA Answers Physicians' Questions

Q: Please explain the HMSA reimbursement schedule for the federal plan preferred provider program. Does this conform to the present usual, customary and eligible charges as determined by the individual physician's profile?

A: The HMSA preferred provider program for federal employees is designed to give incentives to plan members who receive services of program providers. HMSA participating physicians are automatically included in this program. Determination on usual, customary and eligible charges is made on the same basis as all other HMSA plans. The major benefit change involves surgical services. Benefits for surgery from participating physicians will continue to be paid at 100 percent of eligible charges. If a plan member receives surgery from a nonparticipating physician, benefits will now be paid at 80 percent of eligible charges.

Q: On Aug. 16, 1985, HMSA published an initial list of elective surgical procedures for which only outpatient benefits will be paid. However, the accompanying memorandum also indicated that if the attending physician felt that there were extenuating circumstances to require admission to the hospital, then a preadmission determination form should be submitted for review. Please provide any exceptions to this procedure.

A: Preadmission approval is not necessary in the following instances:

(a) When immediate or emergency surgery is required.

(b) If the patient has been hospitalized for medical care (excluding routine preoperative preparation) or other surgery and is operated on for one of these procedures during that hospitalization.

(c) When another procedure is being done concurrently and of itself requires hospitalization.

(d) If, due to the patient's medical history, there is a likelihood of complications or conditions arising during or after surgery which supports overnight hospital confinement for skilled observation and acute care.

For more information, call HMSA's Utilization Review Department on Oahu at 944-3581.

Q: Various services which are in the nature of preventive medicine are excluded in the HMSA benefit structure. This tends to obstruct many HMSA subscribers from seeking needed medical care except for relatively minor acute problems such as URI or simple injuries. Examples of HMSA exclusions are the so called "routine Ob-Gyn examinations, immunizations, etc. Wouldn't HMSA save money in the long run as well as promote its public image in line with recent advertising by more attention to preventive medical services?

A: HMSA does cover immunizations and well-baby care in most of its basic medical plans and offers health appraisals as optional coverage for group plans.

With regard to other preventive services, a review of literature indicates that many services are either not recommended on a routine basis or are not cost-effective. These findings are made by physician professional societies as well as other organizations like the American Cancer Society.

HMSA's basic medical plans are designed primarily to provide coverage for catastrophic medical expenses due to unexpected illnesses or injuries. The relatively low costs of routine examinations such as annual physical examinations and pap smears are expenses that can be included in a person's budget, unlike the costs resulting from unexpected illnesses.

Q: Much less expensive but often improved medical care for many stable, chronic diseases can usually be provided in a group maintenance therapy setting under the supervision of a nurse specialist (examples are clinics for diabetes, hypertension, rheumatoid arthritis, and Parkinson's disease) managed by RNs with physician input only as needed. The cost benefit advantages are obvious. Please comment on the advisability/desirability of a new HMSA payment category to pioneer insurance coverage in this important and growing field of medical practice.

A: While the "cost benefit advantages" of a new payment category for group maintenance therapy may seem logical, our experience with this type of setting has been an increase in overall costs. The initial lower charges of an independent nurse specialist, over a period of time, could gradually approach the charges of the physician rendering the same services. In addition, these services by nurse specialists may not necessarily be accompanied by any corresponding decrease in services by physicians. Instead, the long-term effect is that we will continue to spend the same amount or higher for physician services in addition to paying for nurse specialist services. This would be the case unless there is a decrease in the number of physicians or in their income expectations.

Kahuna Lapa'au

"Auwe! My baby he bin swell up like one o'opu-kawa — no mo' can breathe!" The phone call hung suspended with the excitement vibrant at the far end.

"OK, OK, Mrs. Opunui," answered the medical priest. "Calm you'self. How come da baby ladat? How old da baby? He bin eat somet'ing or what?"

"No, no, doc. I t'ink one bee he sting'um."

"Mo' bettah you bring'um my heiau wikiwiki. My Kona nightingale him get sore foot — no can hobble — an' my needuls an' my medicine him stay o'heah."

Pretty soon Mrs. Opunui hove into view on the path winding up the hill through the Iliahi trees, more out of breath than the overweight 10-year-old on her broad back. But he was obviously fatter than usual in the face, his eyes were swollen shut, his lips looked like cooked hot dogs. He was crying hoarsely, but at least he was crying — and breathing.

"OK, Mama. You go sit down by da rock o'deah an' no go neah da heiau. Kapu fo' wahine, you know. Junior, you one keiki kane, so I goin' take you eensai da heiau. I goin' geevum one beeg poke on top you ass, OK?"

"Doc, doc! Please no use da long one! I scared da kine needul." Junior's edematous eyes were obviously open enough through slits to observe the preparations being made on my polished koa log.

"Nevah mind da long da short. Da hole eensai you skin allsame."

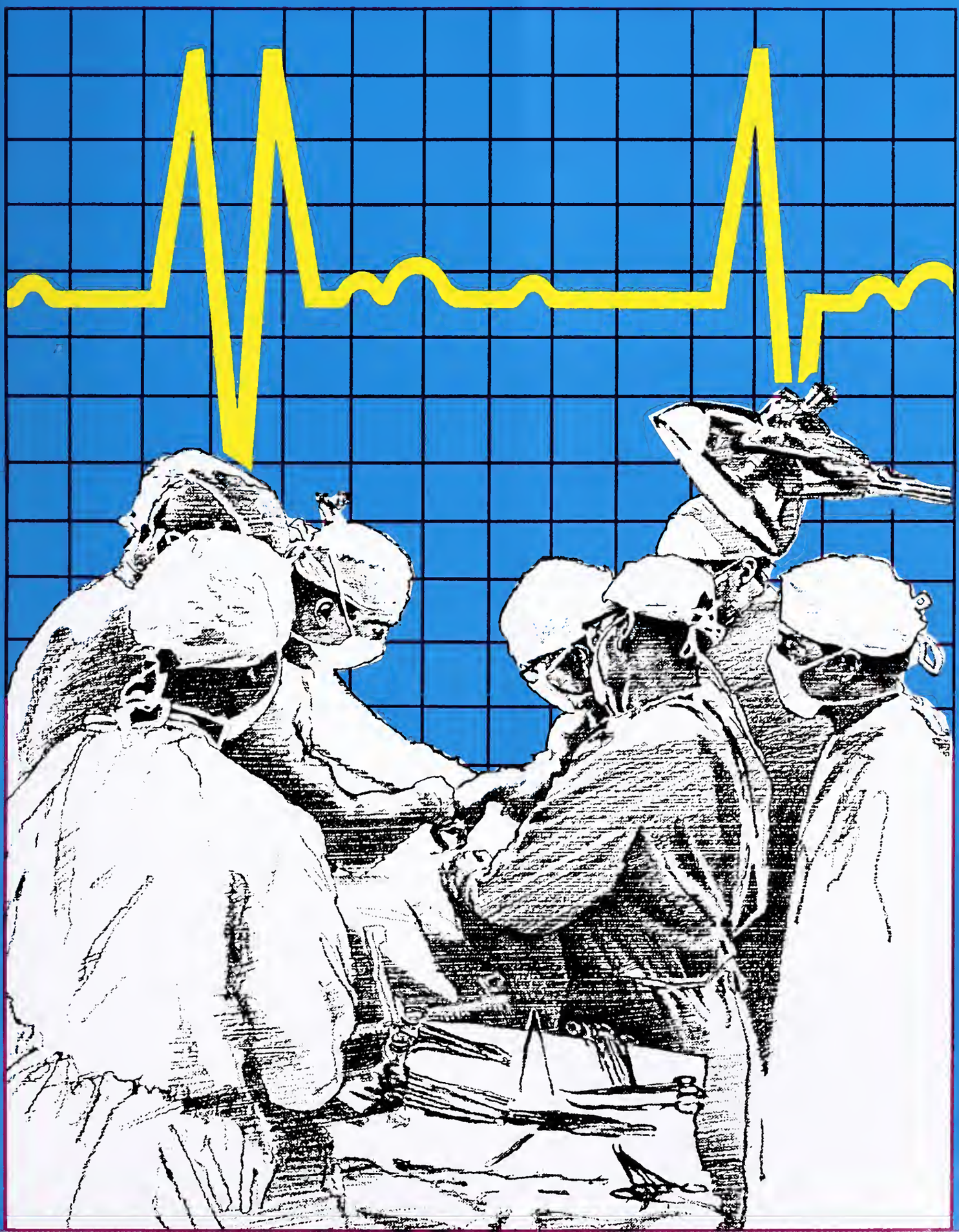
Junior recovered quickly after I gave his wiggling posterior the adrenalin shot that I had made ready in a dose suitable for his age and weight, concocted from the ritually confiscated gland of an extra brave warrior who had recently died in battle.

"Lucky fo' you da bee sting not so bad fo' you dis time. OK? We go assai an' talk-talk wit' you mama," I said, as Junior began to feel better. Mama looked relieved when we approached her. "Lissen, you two," I made my tones professorial. "I goin' explain. Some peepul he allergic. You savvy da kine 'allergic'? Well. . . ." By the time I had finished, Junior's face was almost back to his usual chubbiness and his attention was obviously directed elsewhere. I had lost mama too.

Glossary:
o'opu-kawa = balloon fish
wikiwiki = hurry up
Kona nightingale = donkey
kapu = forbidden

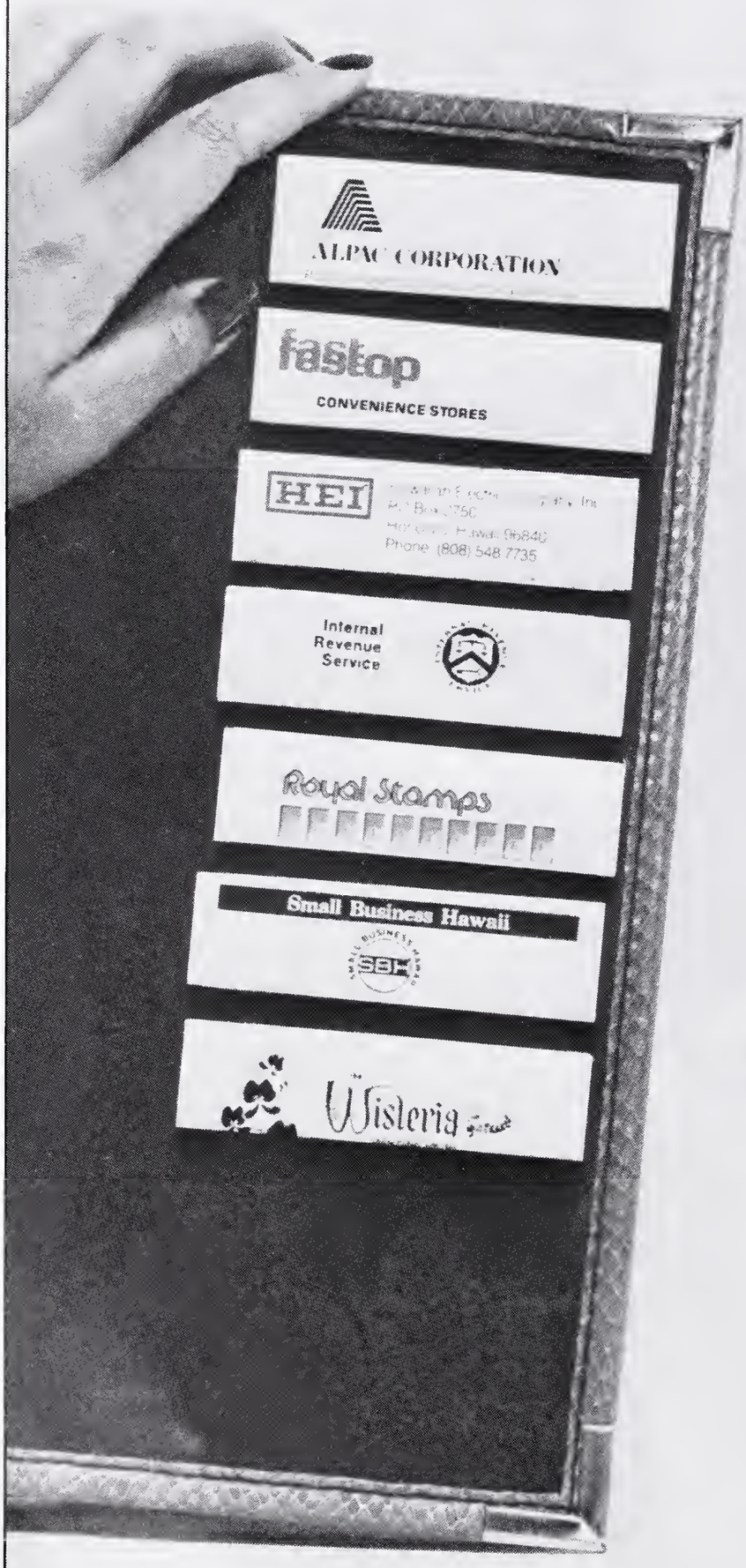
SECOND OPINION...

A New Look at Hospital Services and Health Plans.



A Crossroads Press advertising supplement to Pacific Business News, Hawaii Medical Journal, Hawaii Dental Journal, Hawaii Bar News and The Balance Sheet.

Are These Companies in Castle's EAP for Their People, or the Profits?



The answer is: both. These and other Hawaii companies are discovering that Castle Medical Center's Employee Assistance Program is not only good for their employees, but good for business too.

Employees' off-the-job problems such as marital and family conflicts, financial difficulties, alcoholism and drug abuse can affect their on-the-job performance. Castle's EAP attacks the sources of these problems with specific, results-oriented programs and confidential assistance. And it gives companies an effective new tool to help recover losses from absenteeism, inefficiency and worker's compensation costs.

Find out how Castle's EAP can help your employees and your business. Call 521-0041 today for a free brochure and assessment.

Employee Assistance Program

CMC

Castle Medical Center

"Making Hawaii an even better place to live."

SOME THINGS NEVER REALLY CHANGE, THEY JUST CONTINUE TO GET BETTER . . .

"Where We Celebrate Life Every day"

KAPIOLANI
WOMEN'S AND CHILDREN'S
MEDICAL CENTER

KAPIOLANI WOMEN'S & CHILDREN'S MEDICAL CENTER is a non-profit, specialty medical center serving the medical, health and social services needs of women and children. As the most highly-specialized, technologically advanced teaching center of its kind in the Pacific, we offer your loved ones these personalized services:

- The Only Specialty Center for Women in Hawaii
- A Variety of Birthing Alternatives
- Opportunities for Partner Participation in the Birthing Experience
- The Most Specialized Medical Center in Hawaii for Women with High Risk Pregnancies
- Medical Transport Services to Serve Rural Oahu and Neighbor Island Families
- State-of-the-Art Breast Screening/Mammography
- Infertility Services
- Genetic Counseling
- Family Planning Services
- Maternal, Neonatal and Pediatric Intensive Care
- Fetal Monitoring Transmission System
- Pediatric General Care
- In-Patient and Out-Patient Facilities
- Family Psycho-Social Counseling
- Patient Education
- 24-Hour Emergency Services
- Same-Day Surgery
- Pediatric Arthritis Center
- Children's Divorce Clinic
- Child and Spouse Abuse Programs
- Teen Intervention Program
- Pediatric Cancer Therapy
- Eating Disorders Program
- Poison Center
- Rehabilitation Services
- More than 30 Active Research Programs

After 162 years of service to this community, Kapiolani Women's and Children's Medical Center is *still* the place to bring the women and children you love for care.

Kapiolani Maternity Home moved to the August Dreier home located on Beretania Street, now the site of the Mormon Tabernacle. (circa 1917.)

Kauikeolani Children's Hospital in 1909 — at former location on Kuakini Street.

KWCMC Today

KAPIOLANI WOMEN'S AND CHILDREN'S MEDICAL CENTER

1319 Punahou Street, Honolulu, Hawaii 96826 • 947-8511

Did you know?

Did you know that Saint Francis Hospital is the fastest growing hospital in Hawaii... one of the three top hospitals in the state!

And that they offer Lifeline–an emergency response system for people whose lives may depend on the need for immediate medical attention.

Did you know that Saint Francis Hospital is now a surgical leader? The only one doing organ transplants, both kidney and bone marrow.

Saint Francis Hospital is a leader in laser surgery and in open heart surgery.

Did you know that the Saint Francis Home Care Services provide caring professionals from seven specialties to help in the transition from hospital to home?

Pioneers in Home Care, Hospice and Dialysis. Pioneers also in Pain Treatment and Alcoholic Treatment for Women.

Serving people of all faiths, beliefs or ethnic backgrounds.

Saint Francis Hospital

Discover the Difference

Saint Francis Hospital West
Coming soon to Waipahu

2230 Liliha · 547-6511

Hawaii's Health Care Revolution

by Kenneth R. Harding and Gregory Forest

The physicians' section of the Yellow Pages isn't what it used to be.

Now, attractive young doctors in quarter-page ads beam messages like that of a Liliha Street internist, a woman, who stresses she's "a general doctor who loves practicing medicine."

In another ad, one of her colleagues lists an impressive set of academic credentials: an undergraduate degree from Harvard and a medical degree from Yale.

Still another enterprising specialist offers free bus rides to and from his Wahiawa eye clinic.

Inappropriate advertising? Perhaps in years past; but today, display advertising is "in" and the name of the game in the contemporary health care field is: sell, sell, promote, and sell.

More than listing their specialties, doctors now sell "intangibles," such as caring, confidence, and convenience.

Doctors are not alone. Virtually everyone involved in getting and keeping people healthy — practitioners, suppliers, providers, and insurers — is caught up in competitive bidding for consumer support.

The reason for this is that the health care industry is in the midst of a profound marketing and technological revolution.

Third-largest industry

One feature of the health care phenomenon is its sheer size. The field is now regarded as the third-largest industry in the nation as well as in Hawaii.

How big is health care? Across the country its annual volume is thought to exceed $400 billion. In Hawaii, total expenditures are more than a billion dollars a year — roughly triple the size of the sugar industry. Only tourism and the military comprise larger segments of the local economy.

Nationally, health care accounts for 10.7 percent of the total GNP, compared to only 5.8 percent in 1960.

In terms of employees, some 26,000 workers in Hawaii are involved in health care, including more than 2,000 licensed physicians — roughly one physician for every 465 residents.

By the end of the 1970s, American health care was on the verge of collapsing from the weight of soaring bills and uncontrolled costs.

Burdened by a payment system that stressed guaranteed care at any cost, yet stimulated by a technological explosion of new equipment and procedures, the situation was ripe for change.

With stunning swiftness, a seemingly minor accounting change that shifted payments for Medicare services to predetermined fees from actual costs provided the spark.

Under the new "prospective payment system," which went into effect in 1984, traditional incentives were reversed: instead of being paid to do more at a higher cost, doctors and hospitals are now rewarded for bringing costs down and finding new ways to do more with less.

While the prospective payment system applies only to Medicare payments, the change has encouraged bottom-line accountability in private programs as well, and has provoked a more aggressive approach to the financial management of health care in general.

The resulting flexibility has enabled providers everywhere to meet changing market conditions far more rapidly than in the past.

In the process, the traditional relationships of medical practice — doctor-patient, patient-hospital, and hospital-doctor — are undergoing extensive revision, as new services and specialized health plans proliferate.

The New Economics of Medicine

- The old system was headed for bankruptcy.
- The basis of payment is shifting from actual costs to set fees.
- The delivery of health care services is now highly competitive.
- Consumers are now in charge.

Market-driven

Increasingly, the choice of medical plans and services is up to consumers, who are called on to make wise decisions involving, quite possibly, their own life or death.

Who *are* the consumers?

The greatest consumers of health care are women, although their role has been changing. In 1960, less than one in five mothers of preschoolers were in the labor

(Continued)

Kenneth R. Harding is vice president of Crossroads Press, Inc., and a former director of economic development for Kauai County.

Gregory Forest is an account executive with Myers Advertising, Inc., and a specialist in health care marketing.

Consumers Now Calling the Shots

(Continued)

force. By 1985, more than half were. This has led to an increase in demand for services such as same-day surgery and shortened hospital stays.

Much attention has been given in recent years to the growing population that's 65 and older, a group increasing twice as fast as the population in general. The market for nursing homes will most likely expand, but a more attractive alternative for most Islanders is a care provided in a patient's home.

Another very fast-growing group is persons aged 35 to 44. This group has an especially strong interest in sports medicine, rehabilitation, and preventive programs in physical fitness testing, exercise, and nutritional diet classes.

A decline in blue-collar jobs is expected to lower the demand for occupational therapy, but the increase in white-collar workers will likely cause a greater demand for stress management and physical conditioning programs.

Time is also at a premium for the growing number of professionals in Hawaii's population. Along with so many working women, consumers in general want service at more convenient times, especially on weekends and in the evenings. Convenience — even free parking — is an important factor for a growing number of Island residents.

Still another factor that affects the health care market is the number of broken families. Not only are there many more divorced persons in society, but also more children with single parents. As a group, such persons are "at risk" for unique emotional problems and stress. Counseling and care-group rap sessions, for example, find a ready market.

Finally, most of the population is better educated than in the past. People are demanding to know more about all manner of goods and services, especially anything involving their health and well-being. Second opinions are the "order of the day.".

Intensely competitive

With changes in the market providing a backdrop, health care can be seen as the most entrepreneurial of Hawaii's major industries.

No segment of the economy is changing more rapidly or affecting more individuals and businesses. Operating in a climate of opportunity and risk, the maturing health care field is intensely competitive and responsive to market trends.

Not too long ago, the practice of medicine involved only a physician, usually a "G.P.," and his patient. Hospitals were there, but were places of last resort. When the doctor came, he billed you and you paid him. If you went to the hospital you paid the hospital.

Then insurance entered the picture. In Hawaii, HMSA was founded in 1938, and instead of paying the doctor or the hospital, you paid a fee to the insurance organization and it paid for most of your bill, offering you protection from catastrophic medical expenses.

But as technology progressed, hospitals became mini-laboratories with the latest diagnostic equipment and procedures; inevitably, their services cost more. Between 1978 and 1984, health care costs were increasing at the astounding rate of 12 to 15 percent a year.

Hawaii's Prepaid Health Care Act of 1974 was the first compulsory health insurance law in the nation, and required employers to provide a minimum level of benefits to employees, through a contracted insurer.

Changes in federal and state law helped foster the establishment of specialized one-stop health care centers called health maintenance organizations (HMOs), such as the Kaiser Foundation's Health Plan, Island Care, and HMSA's Community Health Program, all of which vie for employer business.

Unlike standard medical insurance that pays bills after you incur them, HMOs charge a single monthly fee and cover most medical needs.

Now, another entity, the Preferred Provider Organization (PPO), has joined the competition, seeking to offer still lower-cost health care through stricter policies of service usage.

Glossary of Terms

HMO - Health Maintenance Organization. One stop-health care centers with a team of doctors, labs, diagnostic facilities.

PPO - Preferred Provider Organizations. A related health care system that gives significant financial incentives to utilize certain medical personnel and hospitals.

PPS - Prescribed Payment System, pays fees for Medicare based on set fees rather than actual costs.

PPOs are now available in all 50 states and their number has more than doubled since 1983. Queen's Medical Center, for example — Hawaii's largest single non-military acute-care facility — has just introduced a PPO for its own employees, and is about to expand the concept to several employer groups in Hawaii.

Other medical centers offering or thinking about offering PPOs are Castle Medical Center, Straub Clinic & Hospital Inc., and St. Francis which may join with Kuakini and Kapiolani hospitals.

And while PPOs offer a lower-cost alternative to employee groups, they enable providers to cut costs by more careful planning of health care needs and resources.

Merge or diversify

With PPOs, HMOs, and health plans in general now competing in the marketplace, all types of providers are scrambling to survive and are merging and diversifying to an unprecedented degree.

Hospitals are now specializing in unique ways. For example, Castle, which stresses preventive medicine, has been offering an Employee Assistance Program for troubled workers. St. Francis specializes in organ transplants, especially liver and bone marrow, and Queen's has a number of "centers of excellence," among them a 24-hour trauma team, replete with a helipad.

Honolulu Medical Group through Island Care offers a professional team approach with a highly personal touch, under its slogan "The Best of Health." Fronk Clinic advertises "affordable" low-cost health care through HMSA and its own group practice.

Through Straub Clinic's campaign, "Sure at Straub," a patient can tap into over 100 physicians with confidence. And Kokua Nurses is a licensed home care agency as well as a provider of private duty nursing.

More changes are in the works. One of the most critical areas affecting the practice of medicine lies in the exorbitant cost of malpractice insurance, underscoring an urgent need for tort reform.

With medical costs still mounting in general, patients are assuming ever-greater personal responsibility in the maintainence of their health.

As reported in *U.S. News & World Report,* the knowledgeable consumer of today holds new power. In the words of a former president of Blue Cross-Blue Shield, the nation's largest health insurer, "the consumers are in charge now . . . and are learning to flex their muscles."

CONTINUITY-OF-CARE™

24 HOURS A DAY

By combining your expertise and ours for complete patient care, our flexible Continuity-of-Care™ programs enable us to design the optimum home care program for you.

HOMECARE SERVICES

- Experienced and Dedicated Staff
- Patient/Family Training
- Home Planning Assistance
- Home Care Equipment
- Medicare/Insurance Specialists
- Complete Range of Products and Services
- Patient Educational Aids
- Abbey Medical Catalog

RESPIRATORY HOMECARE SERVICES

- Professional Staff
- Patient Training and Education
- Detailed Patient Follow-up Program
- Respiratory and Home Care Equipment
- In-Service Program
- Rehabilitation Equipment
- Medicare Specialists

Hawaii's most complete homecare supplier

ABBEY MEDICAL

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524-3800

ONE HEALTH PLAN REALLY NO'S THE HASSLES.

No doctor bills. No claim forms.
No deductibles or eligible charges
No maximum ceiling on coverage.
No co-payments, in almost all case

Can the health plan you offer your employees now match that? If not, look into Island Care. We offer the most comprehensive benefits package in Hawaii, without the usual health plan hassles.

Island Care members can select their own personal doctor. And because we're a Health Maintenance Organization we cover their preventive health care needs, as well as taking care of them when they're sick.

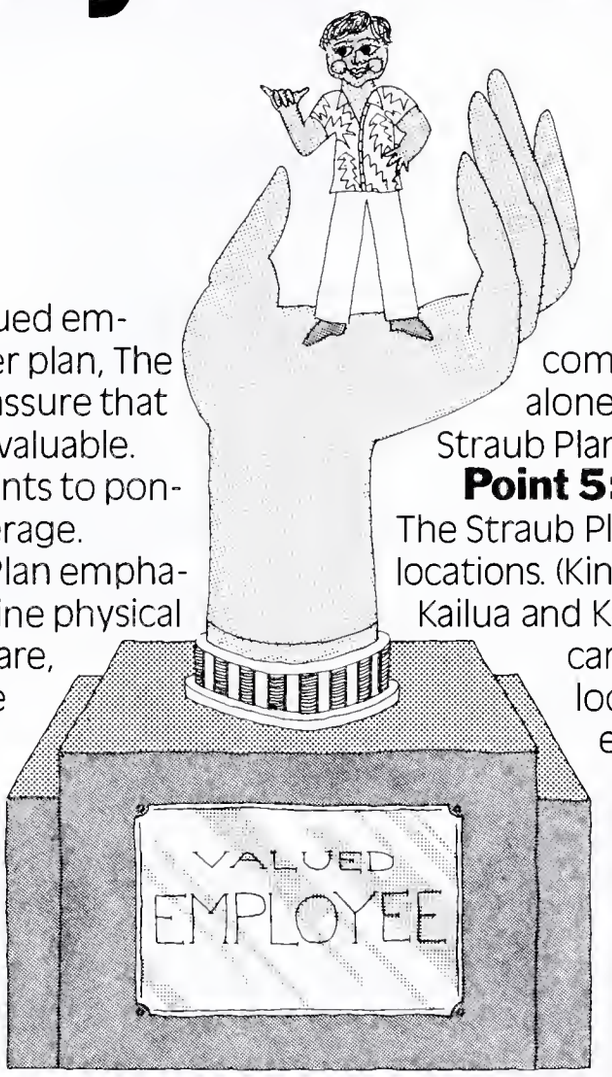
Our monthly premiums may seem a bit higher compared to other plans. But our coverage is so much more that there's really no comparison.

Call 943-1127, or write Island Care at 1580 Makaloa Street, Suite 910, Honolulu, 96814.

Island Care

The health plan you can feel good about

7 ways our health plan helps keep your valued employees valuable.



Reward your valued employees by offering them The Straub Plan

A healthy employee is a valued employee. More than any other plan, The Straub Plan is designed to assure that all your employees remain valuable.

Following are 7 key points to ponder when considering coverage.

Point 1: The Straub Plan emphasizes preventive care. Routine physical exams, pre and postnatal care, well baby visits to age three and immunizations are at no charge. And family planning services are available at a nominal charge.

Point 2: In addition to basic coverage, The Straub Plan offers a benefit that is not available with the more conventional plans—the Health Bonus. For qualifying members, up to 100% of all inpatient and outpatient charges are covered.

Point 3: Programs which promote good health are made easily accessible, again at no charge. Programs such as lifestyle change, weight control, nutrition, stress management, health education, cardiopulmonary resuscitation, exercise and others are conducted at Straub—or your workplace!

Point 4: Don't forget to compare premiums . . . that alone may convince you that The Straub Plan has the edge.

Point 5: Medical care through The Straub Plan is available at all Straub locations. (King at Ward, Aiea, Hawaii Kai, Kailua and Kaneohe.) Should urgent care needs arise, Straub locations (except Kailua) have extended evening and weekend hours until 11 p.m. Now you can get a doctor's care without the expense of an emergency room.

Point 6: The Straub Plan is underwritten by, and offered in cooperation with, HMSA, for companies with 50 or more employees.

Point 7: Straub has set the standard for health care in Hawaii. As a member of The Straub Plan you're assured of the best care available in medicine.

These are some of the differences offered by The Straub Plan. For a more comprehensive review, contact The Straub Plan office at 523-2311. Make it a point.

The Straub Plan

THE HEALTH PLAN FROM **Straub** CLINIC AND HOSPITAL
888 S. KING ST. ■ HONOLULU, HAWAII 96813 ■ (808) 523-2311 ■ TOLL FREE: 1 (800) 232-9491

HMSA does more.

For employers. For providers. And of course, for our members.

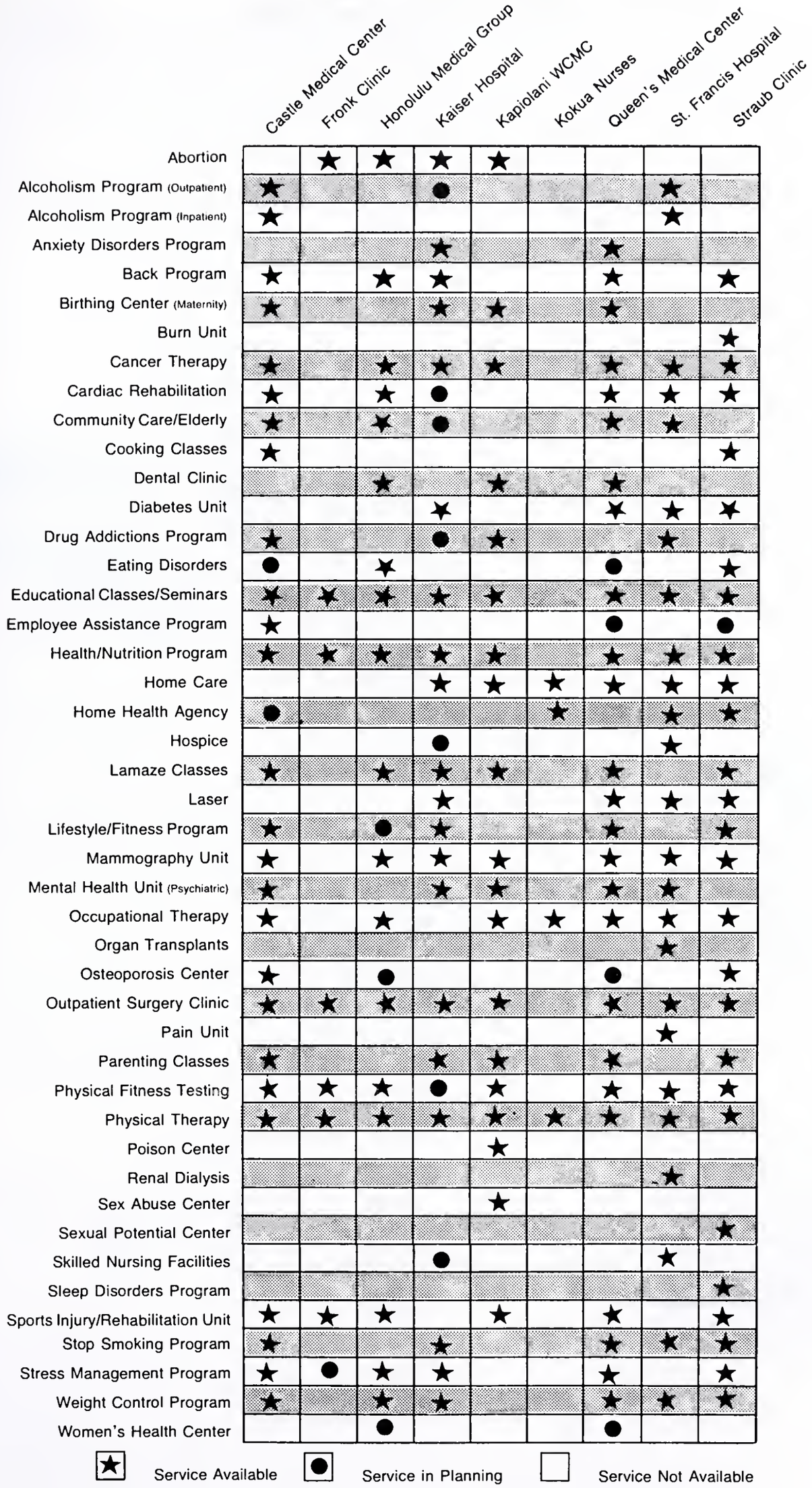
With HMSA, employers get cost-effective employee health plans and practical ways to help keep workers healthy and on the job.

Hawaii's physicians, dentists and other health care providers get fast, fair reimbursements with modern methods for increased efficiency for their practices.

And HMSA members get the freedom to choose their own physicians, and are assured of maximum benefits when they choose from HMSA's 2,000 Participating Providers.

HMSA
Hawaii's leader in prepaid health care plans.

HEALTHCARE SERVICES

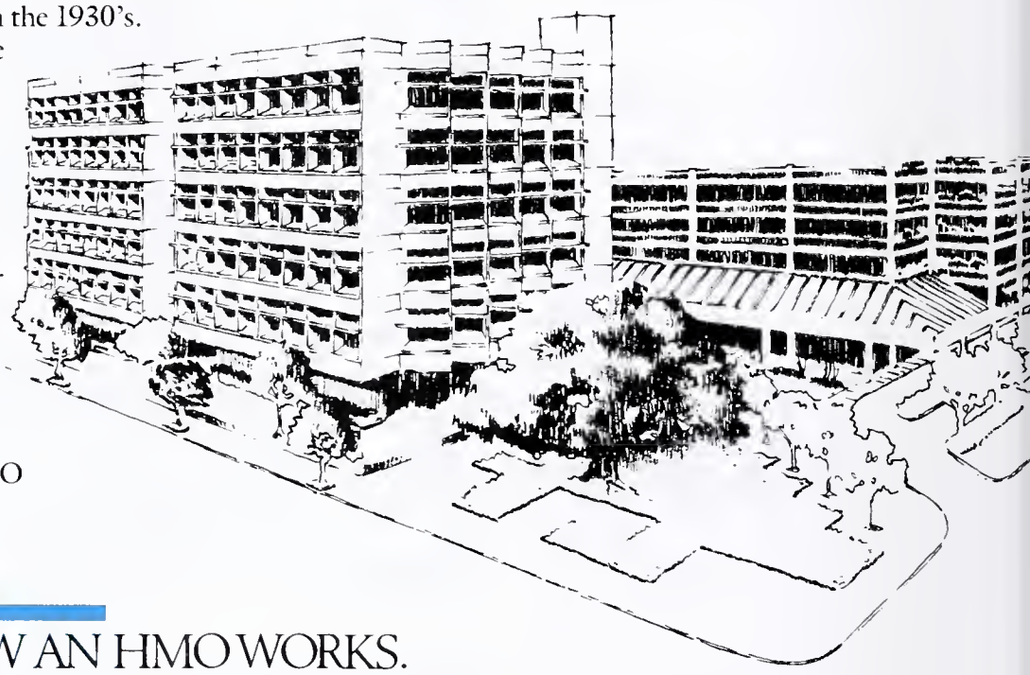


NOW, THE OLDEST HMO IN HAWAII IS ALSO THE NEWEST.

Kaiser Permanente helped pioneer the Health Maintenance Organization (HMO) in the 1930's. Today, the HMO concept has become one of the best ways to control health care costs in this country.

In July, our new $28 million Honolulu Clinic will open on the corner of King and Pensacola streets. This state of the art facility will replace the present clinic in the original Kaiser Permanente Medical Center on Ala Moana Boulevard.

And together with the new 202-bed Kaiser Permanente Medical Center at Moanalua, it will represent the full potential of the HMO concept in Hawaii.



HOW AN HMO WORKS.

Kaiser Permanente operates quite differently from what is known as "fee-for-service" medicine. It integrates *physicians, facilities and prepayment* and it is this linking of all aspects of health care that promotes quality without cutting benefits.

It also saves money. With routine services such as physical exams and immunizations prepaid, members have no financial barrier to seeking health care on a regular basis.

It's called preventive care and it works.

HOW AN HMO SAVES MONEY.

Studies show prepaid group medical practice encourages cost effectiveness. It optimizes the use of support personnel, facilities and equipment. Duplication is avoided and patient and physician time is saved. And it allows many physicians to work together, consulting regularly with one another on diagnoses and treatment.

NOW EVERYTHING IS IN PLACE.

Our new medical center now links a network of eight outpatient clinics on Oahu and two on Maui. It means the latest in medical technology, more personalized service and the best staff of physicians in our history. For more information on how people benefit with Kaiser, please call a Kaiser Health Plan Representative at 521-0803.

SM

KAISER PERMANENTE

Medical Care Program

Physicals & screenings for your employees.

Quickly, efficiently and at special company rates.

Many companies large and small alike choose The Fronk Clinic for their corporate and industrial health care needs.

"Communication with the clinic staff is excellent. I can call and get my answers right away."

"There's no problem in scheduling an appointment. They're understanding and try to accommodate my needs."

Special company rates are available for:

- PUC/Crane Operator Physicals
- Pre-Placement Physicals
- Asbestos Screenings
- Executive Physicals
- and more

For more information, call Pam Marshall, R.N., director of patient relations at 531-6471.

"My company has been going to Fronk Clinic for years. We've been very satisfied with their services."

Russ Silva
senior human resources representative
Chevron U.S.A. Inc.
Hawaiian Refinery

"Kilgo's appreciates the one-stop medical facility Fronk Clinic provides."

A.L. Kilgo
president
Kilgo's

The Fronk Clinic, Inc.

Honolulu
839 South Beretania St.
531-6471

Pearlridge
98-150 Kaonohi St.
Westridge Shopping Center
488-8431

Fronk Eye Clinic
40 Aulike St., Suite 317
Kailua
261-3155

HOME CARE

Since 1979,
high standards of integrity and professionalism have enabled Kokua Nurses to become the top temporary medical placement company in Hawaii for nurses and para professionals.

NOW INTRODUCING
Kokua HOME HEALTH AGENCY

Licensed and Certified for Medicare/Medicaid Reimbursement

RN'S • LPN'S • Nurses Aides
Physical & Occupational
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Workers • RN Supervision
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Also, don't forget our
Private Duty Nursing
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ON CALL
24 HOURS **536-2326**

1210 Auahi St., Honolulu Hawaii 96814

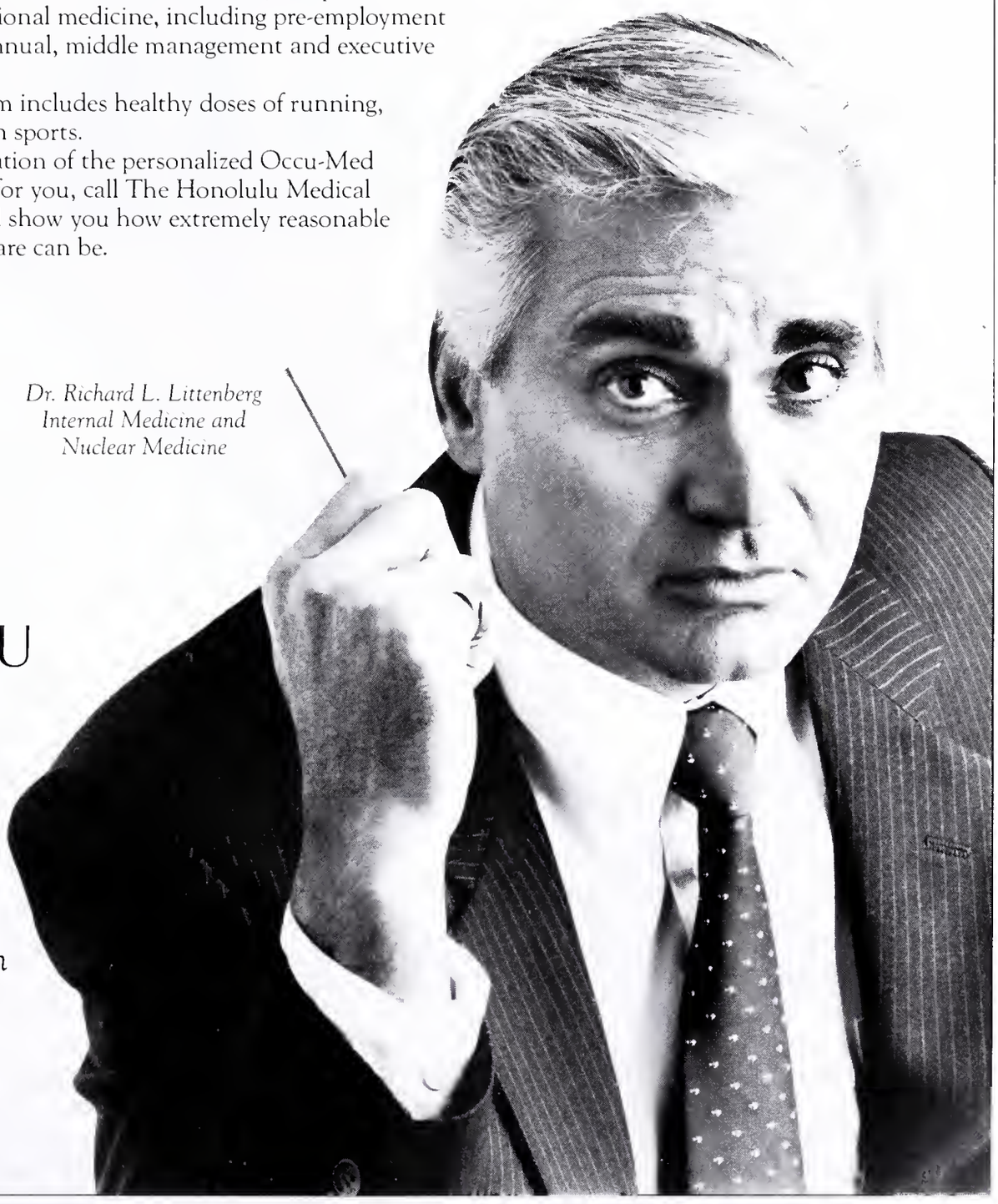
Dr. Littenberg thinks your company's growth is worth an examination.

As president and CEO of The Honolulu Medical Group, Richard Littenberg knows from an employer's point of view how personalized employee health care programs help reduce absenteeism, worker's compensation payments, and health insurance costs.

As one of our specialists in internal medicine, he's part of the reason we're experts in occupational medicine, including pre-employment screening exams, and annual, middle management and executive health care programs.

His personal program includes healthy doses of running, weight lifting, and ocean sports.

For a closer examination of the personalized Occu-Med Program we can design for you, call The Honolulu Medical Group at 537-2211. We'll show you how extremely reasonable good employee health care can be.



Dr. Richard L. Littenberg
Internal Medicine and
Nuclear Medicine

THE HONOLULU MEDICAL GROUP

The Best of Health

550 South Beretania,
by The Queen's Medical
Center • 537-2211

Coming soon. The Queen's Health Care Plan.

There are health care plans that give you some freedom of choice. But the added costs are heavy.

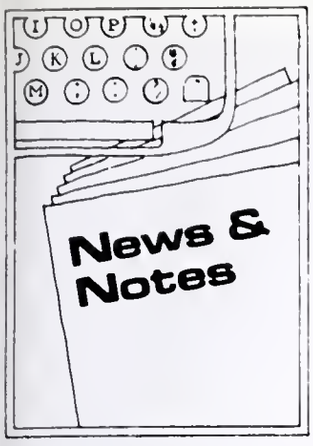
And there are health care plans that offer minimum out-of-pocket costs. If you go where they tell you.

Now there's a plan just ahead that offers the best of both worlds. Comprehensive coverage plus freedom of choice.

Call us for complete information at 547-4279.

The Queen's Health Care Plan

A part of The Queen's Health Systems



HENRY YOKOYAMA, MD

Life in These Parts

"There was Dr. Steven Tenby in his waiting room when a woman came in with her daughter whose face had been scratched by a cat. She asked what could be done. 'Nothing at all,' the doctor replied, 'it'll get well soon enough.' 'Shouldn't a bandage or something be applied?' the woman asked. 'No,' said the doctor. 'How about some medicine?' 'Nothing is needed,' Dr. Tenby patiently explained, and the woman, not entirely mollified, left. 'You see,' he said to a friend in the waiting room, 'my wife never listens to me.' " *(Ed.: He's not alone.)* (From Dave Donnelly's Hawaii.)

Ben Young, associate dean of student affairs at the UH medical school, is the new VP for student affairs at UH.

Gordon Davis, a Phoenix, Ariz., gynecologist, conducted a CME workshop on laser laparoscopy. Ronald Ayabe, a Honolulu gynecologist, had worked with Davis on a study of 158 infertile women; 57% became pregnant and delivered within 18 months after laser laparoscopy. In an 18-month followup study, 75% of the women treated for endometriosis with the laser technique were relieved of their symptoms.

Computer technology combined with a microwave generator costing $100,000 is now available at QMC. Carl Boyer, director of radiation therapy, treats cancer patients with this when standard forms of therapy have failed. The response rate of hyperthermia therapy is 50% and when combined with small dose radiation, it rises to 80%.

Young K. Paik, director of laboratories at St. Francis Hospital, is looking for 100 pure Hawaiians or Hawaiians with at least one pure Hawaiian parent to study the human leukocyte antigen (HLA) data on native Hawaiians.

One of the proposals before the AMA House of Delegates in December was to make mandatory the premarital tests for AIDS virus exposure.

The University of Hawaii needs an extra $400,000 to pay for malpractice insurance premiums to cover its medical school faculty and third- and fourth-year students.

Sportsmen

The Big Island unit of the Hawaii Heart Association conducted a "Dr. Richard Mamiya Golf Tournament" at the Volcano Country Club on April 13. It was a shotgun start with an entry fee of $75 per team, which covered a donation to the Heart Association, and paid for green and cart fees and a steak luncheon and prizes. The formal was two-person best-ball.

Cyrus Loo had successfully treated quarterback Jim McMahon (more recently of the Super Bowl Chicago Bears) with acupuncture before the BYU-Hawaii game in 1980. Loo takes issue with a Honolulu Star-Bulletin story that described McMahon's treatment in "the back alleys of Chinatown."

19th Hole

Two former Kalihi Valley schoolmates met for the first time in 30 years at the Ala Moana shopping center.

Mary: "Agnes! Is that you? How have you been?"

Agnes: "I got married to a good haole. We have three kids. One's a doctor, another a lawyer and the last an engineer. They have all married well and we have 13 wonderful grandchildren."

Mary: "That's fantastic! I've been lucky too. For Mother's Day, my four children sent me to Charm School. the one thing I learned was not to say "Bull----," but to say 'Fantastic!' " (As told by Walter Loo, our golfing partner)

Hors de Combat

A report presented to the AMA House of Delegates in December says that two-thirds of physicians responding to an AMA survey said Medicare recipients are getting poorer care in hospitals because of the prospective payment system. Dennis Siebert of the Health Care Financing Administration says the report is similar to other speculative criticisms in recent months, "but none of it seems to be based on solid evidence."

Phil McNamee and his Pacific In Vitro Fertilization Institute sought legislation requiring health insurance policies to provide pregnancy-related benefits to cover in-vitro fertilization. HMSA president Marvin Hall opposed the bill, arguing that the test-tube baby service is not "medically necessary" and that it would be like mandating health plans to pay adoption costs. The House Health Committee approved the bill, which would help Hawaii's only test-tube baby clinic stay afloat.

Arthur Liang, state epidemiologist, faced with increased flu-like cases in February, warned that children and teenagers should avoid taking aspirin because of the danger of Reye's syndrome.

In February, the Supreme Court overturned by a 3-2 vote Maui psychologist Richard Sword's conviction on his one count of Medicaid fraud. A Circuit Court jury on Maui had convicted Sword in August 1984 of fraudulently billing Medicaid $19 for a patient visit. Sword says the clearing of charges cost him $50,000 in legal fees and feels that legislation is needed to stem "widespread abuse of power" by the attorney general's office.

McDougall Says . . .

(As gleaned from Pat Hunter's feature)

"Breast cancer is incurable and 90% of women who get it will die of it. Radical surgery is useless and chemotherapy and radiation ineffective. Early detection simply finds a cancer sooner and therefore the victim only appears to have a longer survival."

Fred Gilbert and Tom Hall maintain that early detection by mammography can raise the survival rate as high as 95%.

"McDougall feels that his diet is the best prevention against breast cancer and it can slow the progress of the disease after it has been diagnosed."

Gilbert feels there is something to be said for this opinion. High-fat diet has been linked with breast cancer. Also, the diet can lower the level of cholesterol as well as the number of hormones linked to cancer. But. . . .

"McDougall maintains osteoporosis is caused by too much protein and his diet will prevent it or arrest its progress. All a woman needs to do to prevent osteoporosis, according to McDougall, is to get moderate exercise and eat his protein-restricted diet."

Dick Wasnich, KMC osteoporosis center director, says that McDougall's advice on exercise and cutting down on red meat is common sense, but it's a mistake to think that diet change and exercise alone will prevent or arrest osteoporosis.

Miscellany

It was a muggy Kona weather afternoon on the construction site. Santos, the boss, left early. Joe whispered to Manuel: "Hey, the boss left. I think I'll cut out early too." When Joe drove home, he noticed the boss' car parked out front. He tiptoed in the back door and through the key hole could see his wife entertaining the boss. Joe left quietly and rushed back to the job site. "Whew!" he said, "I almost got caught by the boss!" (As related to Claire Loo Nakatsuka by Dennis Wachi)

Elected, Appointed and Honored

Last year's news: Neal Winn was chosen Hawaii chairman of the American College of Ob-Gyn for a three-year term. Ralph Beddow was elected chairman of the State Board of Health. Robert Nor-

(Continued on page 153)

The meeting of the entire general membership of the HCMS (sometimes better called the OCMS to indicate it comprises all of Oahu only) — the meeting once a year at which the president of the HMA makes his official visitation — drew a "crowd" of about 35 on Feb. 11 at the Mabel Smyth auditorium. That was too bad. HCMS has a total membership of 1,387, of which 723 are "active full-pay."

HCMS President Phil McNamee waxed eloquent in exhorting his listeners to consider the professional movement, and to establish a Hawaii branch of, IDA — the Independent Doctors of America. This movement is to counter the forceful thrust of government toward the establishment of cost-cutting HMOs, PPOs, IPAs, etc. that have now encompassed some 20% of the population on the Mainland.

McNamee pointed out the fact that HMSA has 550,000 subscriber/members — by far the largest piece of the medical insurance pie in Hawaii — and that more than 90% of these have Plan IV. He explained that this makes it difficult for other "discount" entities (physician members of such not only would have to give up 20% of their income from practice, more or less, but also lose personal initiative) to enter the field here. Circumstances in Hawaii are unique, as compared with those on the Mainland: There are some 17,000 employers in the state, a state with a population of barely a million, but only 50 employers with payrolls larger than 300. This means the persuasive clout of "large" employers is missing here.

New HMA President Russ Stodd of Maui reported on what the HMA was up to, with a large emphasis on lobbying at the XIIIth State Legislature for tort reform. He was supported in this by the team of Calvin Kam, Charles H. Yamashiro (the radiotherapist, not Charles K., the Ob-Gyn) and Steve Wallach.

What does your leadership need to do to elicit more participation and support from the membership of the HCMS?

In these times of serious portent for the future of the profession, it would seem that the members would demonstrate eagerness to come together and to exercise their democratic right to listen to their leaders, who have worked so hard and selflessly on the members' behalf and for their betterment and to give their leaders encouragement, advice and consent, or to express their negative opinions.

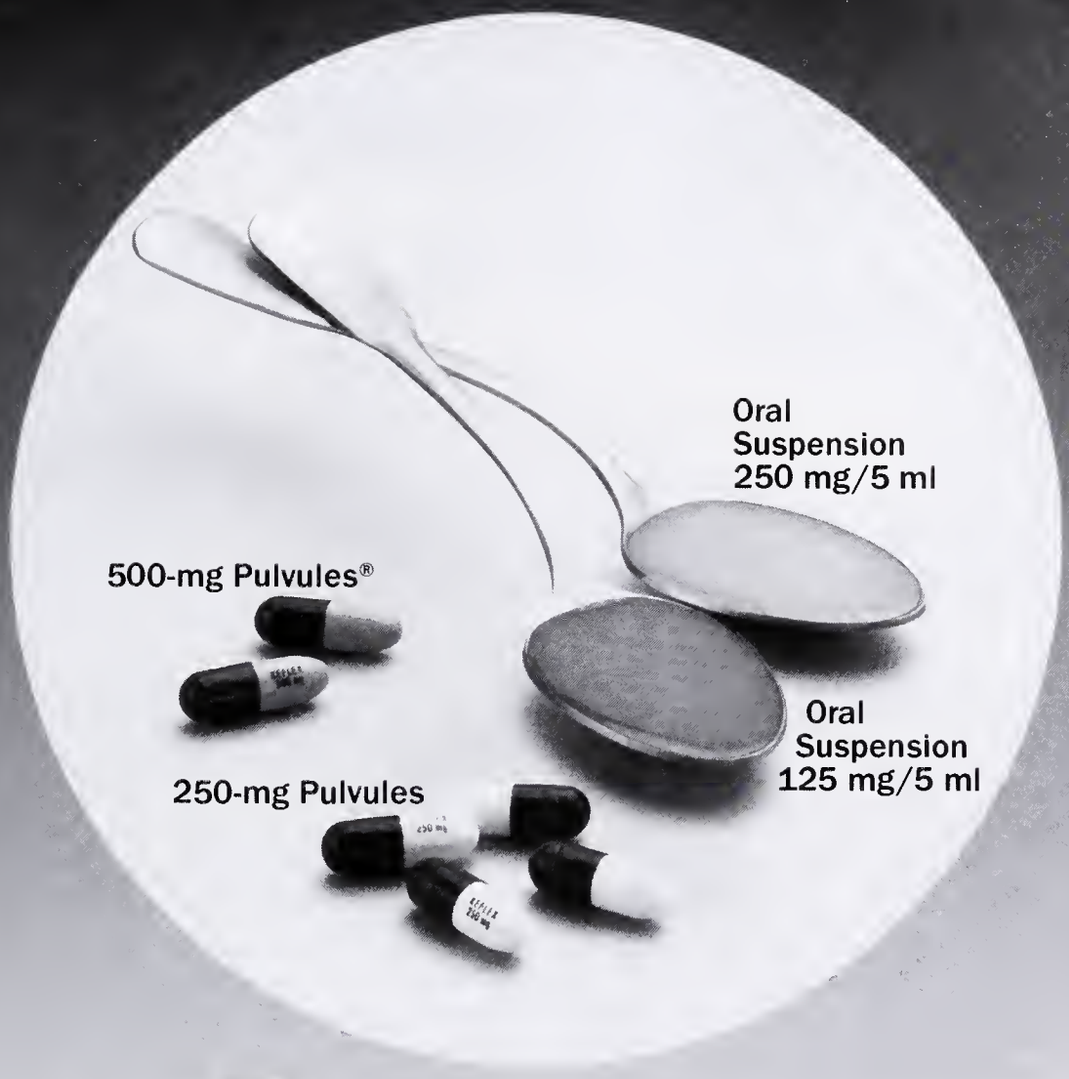
Is it apathy? Is it complacency? Is it complete faith and trust in the leadership that explains this phenomenon of non-participation? Is it that the members are "overeducated" on the issues via TV, radio, two daily newspapers, the HCMS Governors' "green" Bulletin, the HMA's "blue" newsletter, the various special "Legislative Alerts" and other mailings, or even this JOURNAL?

HCMS recently sent out a questionnaire to its members asking them whether they read the Bulletin. Only 205 responded. (Leadership invariably crows over a response rate of a "huge" 20%!) Only 160 or so said that they always read the Bulletin — 80% of the responders, or a little more than one in 10 of the membership; one simply must presume that the other 1,182 did not respond because they never even glanced at the Governors Bulletin long enough to find the questionnaire!

So it is with most all organizations; physicians are no different. If George does it all, well then . . . LET GEORGE DO IT!

J.I. Frederick Reppun, MD
Editor

Easy To Take



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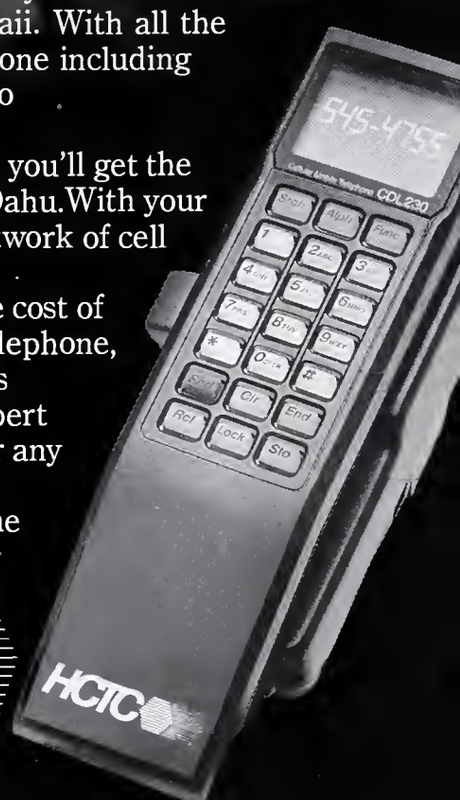

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(Continued from page 149)

dyke was elected president of the Pacific Health Research Institute. Richard Mamiya was elected president of the Hawaii Heart Association and David Fergusson was chosen president-elect. Paul DeMare is the new president of the Hawaii Pacific Division of the American Cancer Society; Drake Will, chairman of the board. Steven Moser of Wailuku was named the HMA Physician of the Year. Rex Couch, G.N. Wilcox Hospital pathologist, passed the exam for certification in forensic pathology. Ghim Yeoh was named a Fellow of the American College of Radiology. The Hawaii Society of Neuroradiology was founded with Michael McCabe as president, Raymond Brust Jr. as vice president, and Ted Watanabe as secretary.

More Elections, Honors and Appointments

More Recent News: The Pan Pacific Surgical Association elected the following: William Yarbrough, chairman; James Penoff, chairman-elect; Kazuo Teruya, treasurer; and Raymond Taniguchi, first VP.

The American Association of Family Physicians elected Lincoln Luke as president; Donald Farrell, president-elect; Jennifer Frank, secretary; and Lily Ning, treasurer.

The Blood Bank of Hawaii elected as new members of its board of trustees Phillip McNamee, HCMS president, and Russell Stodd, HMA president. Julia Frohlich was re-elected president.

The newly founded Hawaii Society of Physicial Medicine and Rehabilitation has 12 local members. Bernard Portner is president; Gary Okamoto, VP; and Meng Fong Jou, secretary-treasurer. The Hawaii Dermatological Society elected Jay Grekin, president; Kim Goh, VP; and Wayne Fujita, secretary-treasurer.

'Les' We Forget

Leslie Vasconcellos retired in 1975 because of a bad heart, but for his 70th birthday in December, 150 people including 40 babies he had delivered since 1946 showed up at St. Theresa's Catholic Church Hall for a surprise birthday party on the Saturday afternoon when UH played BYU in football. Fellow physicians Bernard Chun, Varian Sloan, and Fred Reppun were on hand to pay tribute. Vasconcellos was remembered for his work on Dec. 7, 1941, as a medical intern at Queen's, which led to a picture of him in Life magazine . . . his campaigns as an Army medical officer in the Marshalls and Marianas . . . his role as chief of staff at St. Francis Hospital . . . and his service as Hawaii district governor of Rotary and as commodore of the Waikiki Yacht Club. As Bud Smyser says, "Never once in his long practice was he sued. Today there is almost no finer tribute to a physician unless it is to have a lot of your ex-patients turn out to surprise you on your 70th birthday." *(Vasconcellos also was honored this February by HAFP at its annual meeting, for having been its first president in 1951, '52 and '53, when it was organized as HAGP./Ed.)*

Oncology Conference

A 54-year old Oriental woman had a total hysterectomy 20 years ago and later had breast prostheses (silastic bags) inserted in Japan. A mammogram showed breast tumors. When removed, the tumors showed ductal CA with microscopic calcifications and vascular invasion of the left breast.

Moderator Glenn Kokame asked, "Are there any reports on the carcinogenic potential of silastic implants?" Pathologist Grant Stemmerman was stumped for once: "We have to look that up." But he added, "It's interesting that she had no estrogen stimulation since the oophorectomy 20 years ago. Is she obese?"

Surgeon Roy Iritani was, as usual, kind. "She was moderately obese. I cannot say whether or not she ever received any estrogen." Glenn was kinder, "She was reasonably plump." Stemmy concluded, "Body fat produces estrogen so it could have been the source."

Oncology Dialogue

A 61-year-old Chinese man had hepatomas removed. Radiologist David Sakuda described the coeliac angiogram as "demonstrating two 'blushing sites' viz 6 cm^2 lesions of both the right and left lobes which were later confirmed at surgery. Moderator Glenn Kokame had looked up the latest statistics and intoned: "There are 250 million new cases of hepatoma worldwide each year. In the U.S., the incidence is five per 100,000 persons, which means Hawaii would have 50 new cases each year. . . . Kuakini sees 20 new cases each year. 80% of the cases are secondary to Hepatitis B. . . . There can even be mother-to-fetus transmission. . . . A six-year-old with hepatoma was reported in Japan." Nuclear med man Dick Wasnich reported: "They are beginning to immunize newborns of mothers with hepatitis." Pathologist Grant Stemmerman added: "Afrotoxins have a synergistic effect with Hepatitis B. . . . In China, the beer manufactured has a high afrotoxin content." Glenn repeated his hepatoma anecdote: "I had two surgeon friends in Lafayette. One of them, a cardiac surgeon, pricked his finger doing surgery on a hepatitis patient. He developed hepatoma and died within a year. . . . The other surgeon also pricked his finger during surgery and died of hepatoma." Glenn asked, "How about limited resection of the tumors?" Tom Weyland said, "Cirrhosis is a limited factor for resection." Tom turned to Stemmy and asked, "What's the antigenemia risk when the surface antigen is negative?" Stemmy: "The core antibody may be positive. . . . We've seen some plucking procedures done in small tumors using ultrasound scans every six months. And they've done fairly well." Glenn recalled, "We had a case where (a man's) mother and sister both died of hepatoma. . . . (He) decided to have a checkup and both core and surface antigens were positive. Ultrasound scans picked up hepatomas."

Stemmy questioned whether or not the hepatitis vaccine was effective. "Four to 5% of people receiving the vaccine show no increase in core and surface antigen titres. This is the same incidence as the carrier state in the general population. The question is whether or not the vaccines prevent hepatitis. The immunizations may simply reduce the morbidity of hepatitis when it occurs." Glenn asked, "What's the status of monoclonal antibodies?" Nuclear med man Dick Warsnick was succinct: "Promising but not conclusive."

Hawaii Society of Pathologists Meeting

The Tenth Annual Summer Seminars sponsored by the HSOP were run by "Godfather" Herb Uemura at the Sheraton Princeville Hotel on Aug. 23, 24 and 25. The highlights included tennis, golf tournaments, a banquet and a free breakfast session with the ASOP president, who spoke eloquently on DRGs and federal cutbacks that would have an effect on pathologists. His message was that the picture remained dismal, but there is a silver lining. The regulars who failed to attend this year missed out on the $45 per couple room rates at the spanking new Sheraton Princeville and $21 green fees at the Princeville golf course. . . .

Prophet of Doom

Carolyne Davis, former administrator of the Department of Health and Human Services' Health Care Financing Administration, reported at a KWCMC meeting that in 1985 Medicare paid out $13 million an hour, or $2 million an hour more than in 1984. She predicted drastic changes in the way doctors are paid to be, viz: Like the prospective payment system for hospital care. Medicare Part A hasn't gone broke as was predicted a year or so ago and now should be healthy until 1989 or even the year 2000, but Congress is worried about Part B, three-fourths of which is paid out to doctors. The doctors may have to accept the Medicare allowance as full payment of fees. Congress may offer incentives to states enacting tort reform measures to curb spiraling malpractice suits and judgments.

Davis, who left HCFA in August, predicts a surplus of 200,000 physicians by 1995. Other studies have indicated an excess of 55,000 physicians but her own estimate takes into account a decrease in the use of health care services and an increase in HMOs. "Congressmen have learned that they can ask health care providers to stay within a budget and still provide quality care. Since the federal government implemented changes in reimbursements for the Medicare/Medicaid programs, the quality of care has not decreased," she says.

AIDS Update

(As of November 1985, per Life Foundation in Hawaii.)

Hawaii has 62 cases. Another 600 persons have Aids Related Complex (ARC), a preliminary phase of AIDS. Approximately 6,000 others do not have AIDS, but carry the virus and may transmit it.

At risk are gay and bisexual males and heterosexuals with multiple sex partners, intravenous drug users, recipients of certain blood products, sexual partners of those groups, and infants born of mothers at risk for AIDS.

AIDS can be transmitted through activities involving tissue trauma or exchange of body fluids or both.

AIDS may not manifest itself until months or years after exposure.

Symptoms: Persistent fatigue, fever, shaking chills, night sweats lasting longer than several weeks; weight loss, (over 10 pounds); lymphadenopathy lasting more than two weeks; pink to purple, flat or raised blotches or bumps on or under the skin, in the mouth, nose, eyelids or rectum; persistent white spots or unusual mouth blemishes; persistent diarrhea; persistent dry cough, especially associated with shortness of breath.

AIDS is preventable. Informed gay communities across the nation have changed their behavior pattern, demonstrated by an drop in gonorrhea of 80% to 90%.

More AIDS Update

Martin Hirsch, one of the Boston researchers, has reported in the NEJM that the AIDS virus is rarely found in the saliva of people infected with the disease and therefore can't be passed through kissing, sneezing or sharing eating utensils.

Researchers at UCSF report that the use of condoms helps to prevent the spread of the AIDS virus. Virologist Jay Levy said that tests show definitely that the virus cannot penetrade the condom's thin membrane.

Kudos to Morgan

Pulmonologist Edward Morgan was elected to Fellowship in the American College of Physicians.

Personal Glimpses

Kekuni Blaisdell, professor of medicine at UH, says, "I am a native citizen of the Hawaiian nation and we have two main goals — one is to revitalize our culture, which has almost been completely devitalized, and the second is to alleviate the plight of our nation." Blaisdell spoke at a meeting sponsored by Na Oiwi O Hawai'i, a fledgling Hawaiian organization that promotes cultural and social awareness. The "plight" is Hawaiians' short life expectancy and the highest mortality rates for heart disease, cancer, stroke and accidents; as well as the high incidence of hypertension, diabetes, dental caries, suicide and mental retardation. He points out the strengths of the Hawaiians in terms of their reverence for the land, their spiritual nature, their belief in group affiliation and their affection for children. . . .

Robert Laird, medical director of the Ironman Triathlon World Championship, spoke at the Australian Sports Medical Federation meeting in November in Ballarat, Victoria, Australia. Laird was surprised at the Australian public's awareness of the Kona coast. "The Ironman has put Kona on the map in Australia," Laird says.

Miscellany

Three couples approached the Pearly Gates. St. Peter asked the first couple: "Why do you think you should be admitted?" "Well, we were active in the Baptist church, I was deacon, etc., etc." St. Peter: "According to my records, your wife is named Penny and both of you were too interested in money. Step aside. . . ."

The second couple explained that they were good Christians, members of the Methodist church, contributed regularly to charity, etc., etc. St. Peter: "My records show that your wife's name is Sherry and that both of you indulge quite a bit in alcoholic beverages. Step aside. . . ."

The third couple had been listening to the dialogue. The husband turned to his wife: "I don't know why you had to be named Fanny. . . ." (As told by Walter Quisenberry.)

(As related to Claire Loo Nakatsuka, our favorite MSD rep.)

A man applied for a job in a clothing store. The manager pointed to an orange-yellow-green polka-dot suit: "If you can sell that, the job is yours." When the manager returned from lunch, the job applicant, with his clothes tattered and his face and arms scratched terribly, announced triumphantly, "I sold it! I sold it!" The manager was astonished. "Guess the customer offered some sales resistance, eh?" "Oh, no! The customer was very happy, but his seeing eye dog was pissed!" (Kaneohe physician A.L., who wishes to remain anonymous.)

Over the Editor's Desk

FRED A. PRITCHARD HAS BEEN APPOINTED PRESIDENT AND CHIEF EXECUTIVE OFFICER OF THE QUEEN'S HEALTH SYSTEMS, which includes The Queen's Medical Center, Queen Emma Foundation, and Queen's Ventures Inc.

Prior to joining Queen's, Pritchard was associated with Multicare Medical Center of Tacoma, Wash., as its president and chief executive officer. Multicare Medical Center is a consortium of three Tacoma-area hospitals: Mary Bridge Children's Health Center, Tacoma General Hospital, and The Doctor's Hospital of Tacoma. The consortium also operates several affiliated corporations, which include Hospice of Tacoma, Associated Home Health Services, Marquart Adult Day Health Center, Multicare Enterprises Inc. (operates outpatient laboratories), Puget Sound Occupational Health, and Shared Health Services (detoxification, outpatient, and counseling facilities relating to drug and alcohol abuse).

Pritchard is active in state and national health care organizations. He is the chairman emeritus of the Association of Western Hospitals and has served as the chairman of the Washington State Hospital Association. He is a current member of both the American and Western Hospital Associations.

THE HAWAII SOCIETY OF PHYSICAL MEDICINE AND REHABILITATION HAS BEEN FOUNDED BY 12 LOCAL PHYSICIANS, according to the founding president, Dr. Bernard M. Portner.

Other founding officers of the society are Dr. Gary Okamoto, vice president, and Dr. Meng Fong Jou, secretary-treasurer.

The new organization is affiliated with the Hawaii Medical Association and the Honolulu County Medical Society, as well as represented on the Council of Societies at the American Academy of Physical Medicine and Rehabilitation.

The new organization is composed of physiatrists — doctors who, after finishing medical school, attend a postgraduate residency program in the Department of Physical Medicine and Rehabilitation. During this training, the physiatrist becomes expert in the use of physical modalities (such as therapeutic heat and cold, traction, manipulation) and the rehabilitation principles used to treat patients with chronic or long-term deficits in order to maximize their function.

The purpose of the society is to advance knowledge in the field among

(Continued on page 162)

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Hawaii Academy of Family Physicians' Newsletter

MARLIES FARRELL

Membership News

HAFP welcomes these new members: P. Douglas Nielson, in private practice in Laie, has transferred to Hawaii from the Utah chapter; Kenneth Thourson, with the Waianae Cost Comprehensive Health Center, comes from Nebraska; both are Active members. Victor F.S. Chang is a new Sustaining member.

The following members were re-elected to three-year terms of Active membership after completing at least 150 hours of Academy-approved CME: John Aoki, Wiliam Clevenger, Don Farrell, Robert Freeman, Mary Glover, Michael Hase, Morris Hayes, Milton Howell, Jim Koch, Patrick Lowry, Lincoln Luke, James Mitchell, Michael Murray, John Newman, Lily Ning, Gwen Nishimura, Patrick Walsh, Norman White, and Nathan Wong. Congratulations to them all!

Annual Meeting '86

HAFP conducted another successful Annual Meeting and Seminar in February. The two-day scientific session, dealing with the topics of orthopedics and rheumatology, was very well attended and the quality of both speakers and topics was rated highly by the registrants.

Varian Sloan, a former member of the AAFP Board of Directors and former HAFP president, installed the following members in their new positions: president (and already elected) — Lincoln Luke; president-elect — Donald Farrell; secre-

(Continued on page 161)

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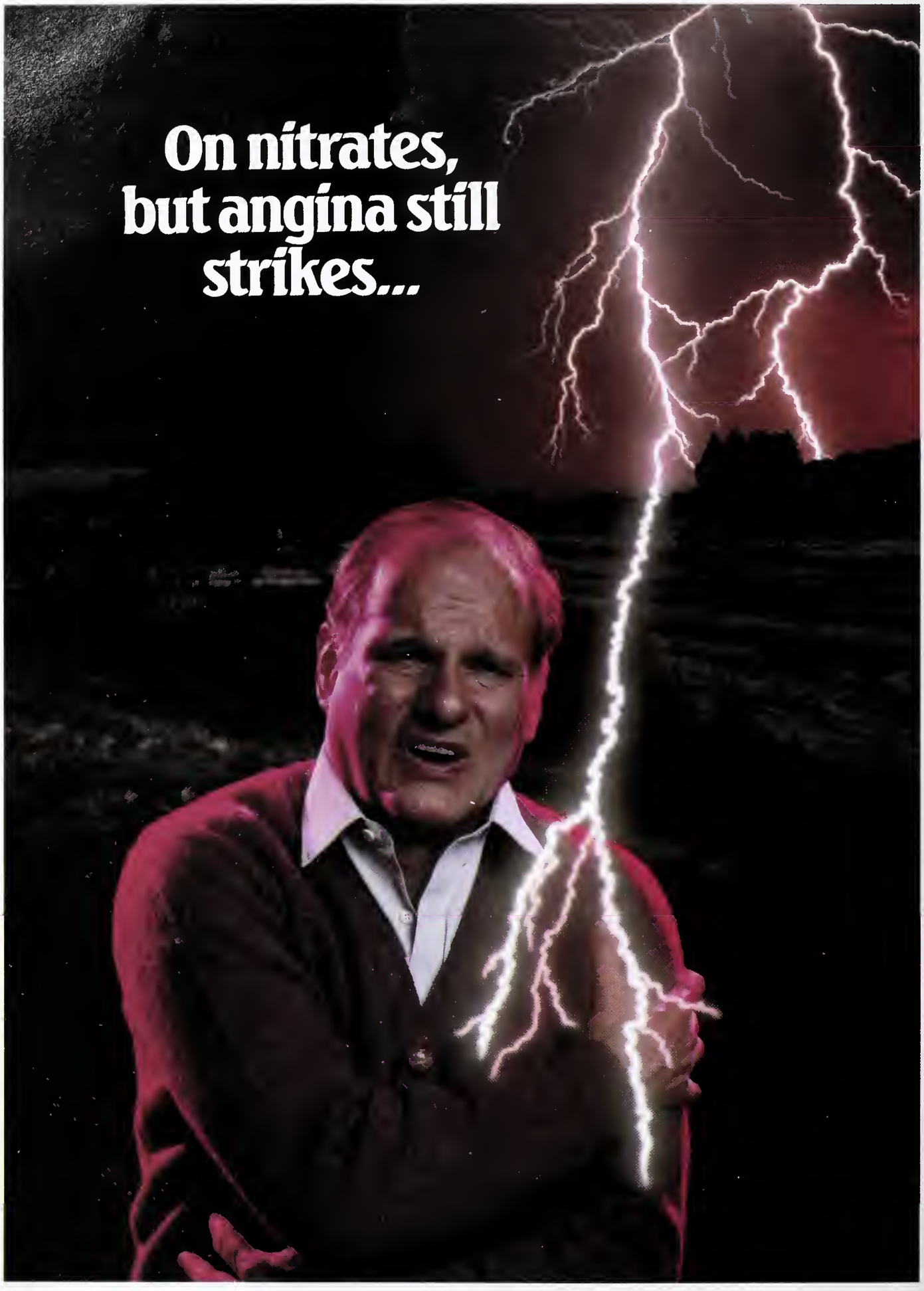
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With Isoptin, fatigue, bradycardia and mental depression are rare. Unlike beta blockers, Isoptin can safely be given to patients with asthma, COPD, diabetes or peripheral vascular disease. Serious adverse reactions with Isoptin are rare at recommended doses; the single most common side effect is constipation (6.3%).

Cardiovascular contraindications to the use of Isoptin are similar to those of beta blockers: severe left ventricular dysfunction, hypotension (systolic pressure <90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no artificial pacemaker is present) and second- or third-degree AV block.

So, the next time a nitrate is not enough, add Isoptin... for more comprehensive antianginal protection without side effects which may cramp an active life style.

ISOPTIN. Added antianginal protection without beta-blocker side effects.

Please see brief summary on following page.

Continuing Medical Education

CALENDAR OF ACCREDITED EVENTS—CATEGORY 1

Accredited Programs of CME allow one unit of AMA credit for each hour of instruction excluding all "breaks." Some programs also are accredited for AAFP prescribed credit.

LOCAL ACCREDITED PROGRAMS
ONGOING

For a complete list of ongoing programs, please refer to the March 1986 issue of the HAWAII MEDICAL JOURNAL. Further information is available through the individual institutions or through the HMA's CME Department.

SPECIAL EVENTS

All special events should be confirmed with the CME program sponsors, as cancellations are not necessarily reported to the HAWAII MEDICAL JOURNAL.

May 25-June 8, 1986	Acupuncture Research Update, co-sponsored by the School of Public Health, Dr. Julia Tsuei, MD, 1380 Lusitana St., Suite 512, Honolulu 96813, (808) 536-2188. Location: Several cities in China.
June 7-14, 1986	Emergency Medicine Conference, Dr. Gayl Anderson, MD, director, Department of Emergency Medicine LAC-USC Medical Center, Los Angeles, Calif. 90033, (213) 226-6667. Location: Waiohai.
July 7-12, 1986	XVIII International Congress of Pediatrics, American Academy of Pediatrics, 141 Northwest Point Rd., P.O. Box 927, Elk Grove Village, Ill. 60007, (312) 228-5005. Location: Honolulu.
July 13-16, 1986	Allergy and Clinical Immunology for Primary Care Physicians, Dr. R. Michael Sly, MD, Children's Hospital National Medical Center, 111 Michigan Ave. N.W., Washington, D.C. Location: Hilton Hawaiian Village.
Aug. 1-6, 1986	Presymposium Workshop, (in association with Aug. 10-15 Symposium), Southern California Neuropsychiatric Institute, Stacey W. Grace, associate program director, 6794 La Jolla Blvd., La Jolla, Calif. 92037. Location: Stouffer's Wailea Beach Resort, Maui.
Sept. 15-18, 1986	The Asia-Pacific Refractive Surgery Seminar, Dr. Gilbert Yamamoto, Ophthalmology Division, Suite 401, 321 North Kuakini St., Honolulu 96817, (808) 531-5993. Location: Kyoto, Japan.
Oct. 18-25, 1986	Operative Arthroscopy, Janet Frank, assistant director, Continuing Education in Health Sciences, UCLA Extension, 10995 Le Conte Ave., Room 614, Los Angeles, Calif. 90024, (213) 825-8423. Location: Maui.
Oct. 20-24, 1986	New Approaches to the Evaluation of Neoplastic Lymphoproliferative Disorders, co-sponsored with the University of Southern California, Dr. John Parker, professor and co-chairman, Department of Pathology, University of Southern California School of Medicine, 2025 Zonal Ave., Los Angeles, Calif. 90033, (213) 224-7121. Location: Maui.

(Continued from page 157)

tary — Jennifer Frank; treasurer — Lily Ning; delegate — Lily Ning; alternate delegates — Bernard Chun and Nathan Wong; councilors through 1988 — John Aoki, Paul Esaki, and Fred Reppun; councilor through 1987 — Sandra Penn; councilor through 1986 — Kenneth Steinweg.

Fred Reppun in his inimitable style then presented special awards to two longtime members of the Academy: Les Vasconcellos, who served as the Hawaii chapter's first president in 1951, 1952 and 1953, and James Fleming, who has been in practice for more than 50 years. The presentations traced both physicians' lives from their earliest years, touched on their professional as well as private achievements, and honored them for their dedication to medicine in general and family practice in particular. The evening closed with a performance by one of Hawaii's foremost barbershop quartets, the "Tiki Tones."

Health and Fitness Fair

HAFP embarked on a true "adventure" in January by participating in the 1986 Health and Fitness Fair at the Neal Blaisdell Exhibition Hall. We felt somewhat like "Daniel in the Lion's Den," surrounded as we were by exhibits proclaiming the almost miraculous properties of garlic, producing photographs of one's spiritual "aura" or cellophane wrap weight-reduction, to name a few! Here we were trying to educate people about sensible health habits, encouraging them to have blood pressure checks and explaining what family practice is all about — how dull! In all fairness, there were some excellent exhibits sponsored by the major hospitals and responsible medical organizations, but they were vastly outnumbered by the questionable and outrageous ones. How about "Genetic Research" involving "Sublingual Amino Acids"!?

It was an eye-opening experience if nothing else. We did speak to people who were interested in their health and perhaps made a few points. The question is: What about next year? Do we not participate again because we do not want to be associated with an undertaking such as this or do we want to provide a small voice in the wilderness? At its last meeting, the Executive Council debated this issue and as it stands now, the answer is NO! But perhaps as you read this, you may feel differently. Please let us hear from you! In the meantime, we would like to thank those intrepid souls who helped to man the HAFP booth: John Aoki, Bernard Chun, Don Farrell, Jennifer Frank, Bob Hollison, Lloyd Kobayashi, Howman Lam, Lincoln Luke, Steve Mohlie, Lily Ning, Gwen Nishimura, Fred Reppun, Ken Steinweg, and Nathan Wong.

Over The Editor's Desk

(Continued from page 154)

physiatrists in Hawaii, to help educate non-physiatric colleagues about the proper use of physical modalities and rehabilitation techniques, and to educate the community as to the proper use of these treatments.

Special interests of the local group include such issues as workers' compensation, aging, rehabilitation of the severely disabled, orthopedic and sports medicine, stroke and head injury rehabilitation, chronic pain, and electrodiagnosis. The organization will meet on a quarterly basis; headquarters are the Hawaii Medical Association, 320 Ward Ave.

WILLIAM G. DAVIS, MD, HAS BEEN ELECTED TO A SECOND TERM AS PRESIDENT of the Medical Executive Committee of the Rehabilitation Hospital of the Pacific. The election was conducted at the committee's annual meeting recently. Jordan S. Popper, MD, was also elected to a second term as vice president.

FEWER TRAFFIC DEATHS WERE REPORTED IN STATES WITH SAFETY BELT USE LAWS LAST YEAR. The lives of more than 400 motorists have been saved in states with safety belt use laws in effect, countering a nationwide trend toward higher traffic death rates in 1985, according to figures released by state agencies in New York, New Jersey, Michigan, and Illinois.

New York and Michigan reported that 28% fewer drivers and passengers have died since laws in each of those states have been in effect — Jan. 1, 1985, in New York, and July 1, 1985, in Michigan.

In Illlinois, where the law has been in effect since July 1, 1985, but has been enforced only since Aug. 1, the number of vehicle occupants killed in traffic accidents has drooped 27.9% in August and September compared with the same two months in 1984. And New Jersey reported a 13% decline in traffic fatalities in the first four months that the state's law was in effect.

CHAMPUS CLARIFIES RULES ON MARRIAGE AND FAMILY COUNSELORS, EFFECTIVE FEB. 1, 1986. CHAMPUS does *not* disapprove of marriage and family counseling, since it may be helpful to military families. However, CHAMPUS rules have always required that only psychotherapy that is medically or psychologically necessary to treat a diagnosed mental condition be covered. CHAMPUS rules continue to require that a physician must initially refer patients for all psychotherapy involving marriage and family counselors, and must supervise the treatment. This means that the physician must actually *see* the patient and make an initial diagnosis describing a CHAMPUS-covered psychiatric disorder before referral.

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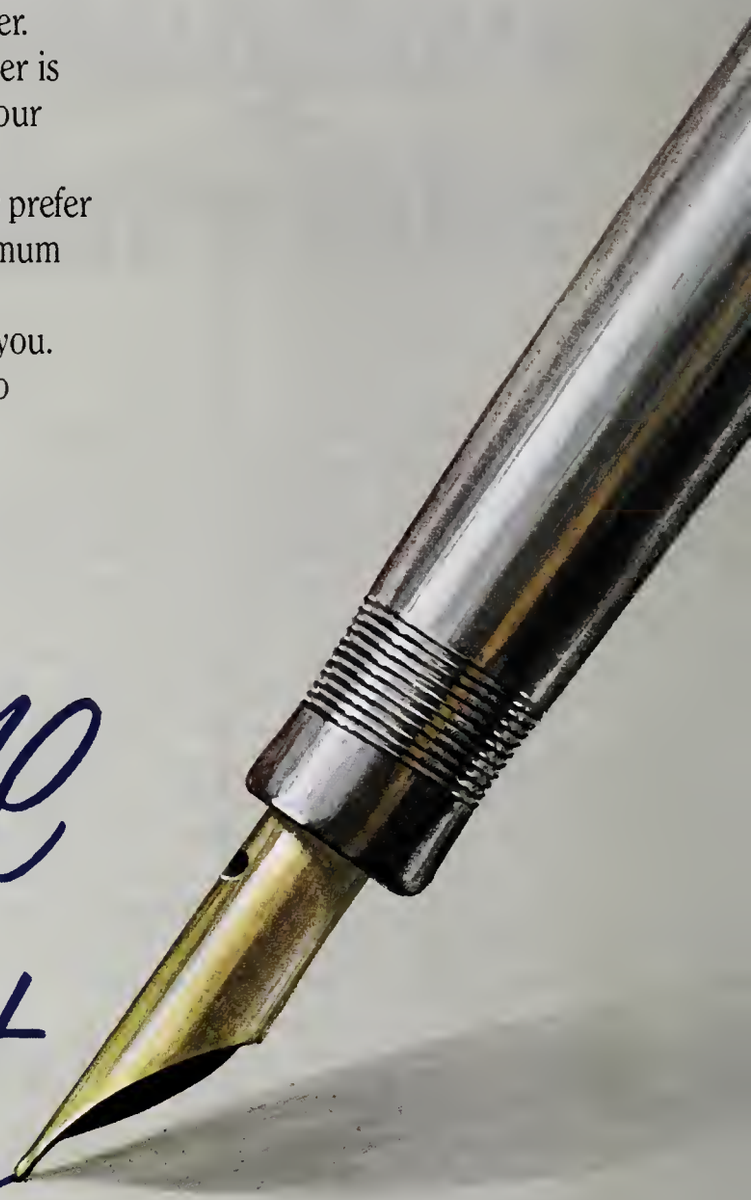

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VOL. 45, NO. 6

Hawaii Medical Journal

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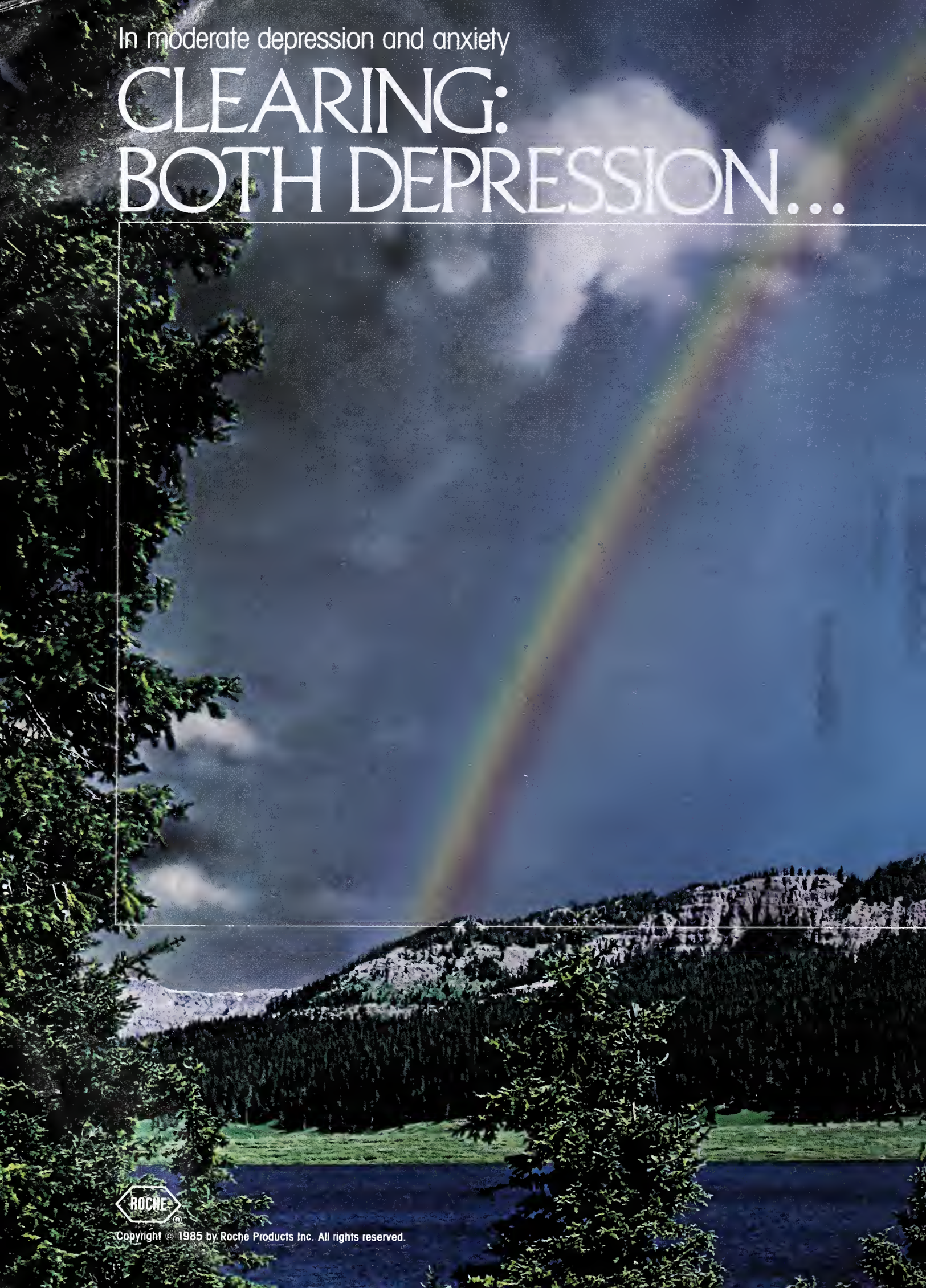

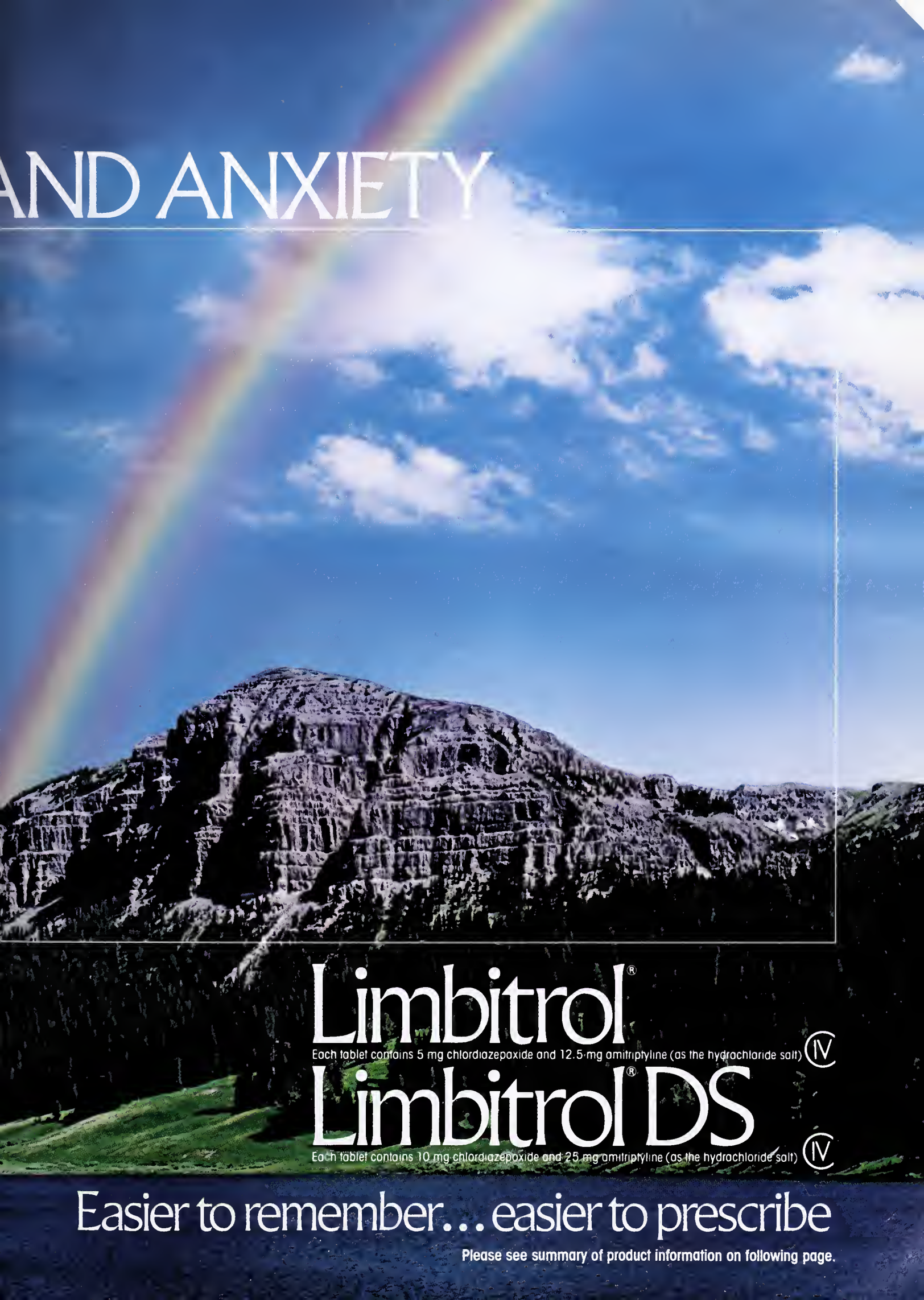
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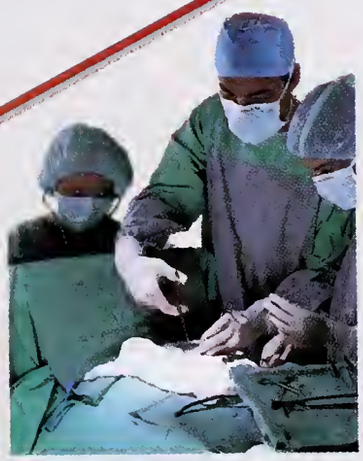

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FROM THE PRESIDENT

Russell T. Stodd, MD

Succeed by Placing Patients First

It was my pleasure as president of the Hawaii Medical Association to attend the recent leadership conference sponsored by the American Medical Association in Chicago. As usual, it was well planned, to the point, and provided more material than one could absorb in the time allowed.

Many of the sessions, both plenary and breakout, involved the changes in financial strategy to provide medical care, that mechanisms are diverse, extending from the closed-panel type of HMO such as provided by Kaiser Permanente, to the statewide PPO that is being sponsored by the Medical Association of Georgia. The similarity generates around a contract with the client buying a medical package. The method of physician reimbursement is quite variable, and might be fee-for-service billed to the contract (usually based on a discounted schedule), or an agreed-upon salary, or a capitation plan relating to the number of enrollees in one's care. All schemes describe a loss of freedom, in varying degree, for both patient and physician. The attraction is great for the purchasers of services (General Motors, Sears, IBM, etc.) because they can negotiate an annual contract based upon capitation. Hence the statement by that great American patriot, Lee Iacocca, while sucking at the massive federal mammaries and trumpeting free enterprise, "We must break the back of the fee-for-service doctor." One wonders how he selects his physician.

A more pleasant presentation was by Robert Waterman, author and business consultant. He spoke kindly of his respect and admiration for physicians, but described in detail our "internalization." Too often, the patient and the public seem outside of our dedicated interests. His thesis was that we lose sight of the patient, fail to listen and respond to criticism, make excuses or just ignore a lack of quality in our work, and react to change with fear and loathing rather than viewing it as an opportunity. He told in painful detail his experience at "a local Honolulu hospital" when his wife was injured while vacationing here; the waiting in the emergency room, the preoccupation with forms and information, the X-rays which were lost and had to be repeated, the nurse who tried to give his wife someone else's medicine, the lack of communication between doctor and nurses, the failure to coordinate activities with shift changes. He did not wish to fault "the hospital," but only wanted to describe the careless habits that result when one fails to attend to quality.

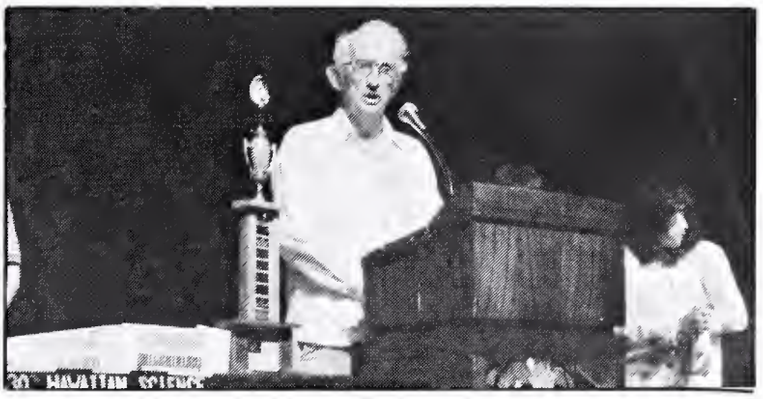
The changes in medicine weigh heavily upon us — with professional liability, trend toward group practice, alterations in reimbursement, and the pressures of increased competition. However, the formula for success remains the same no matter the locale, the reimbursement system, or other superficial variables. All speakers agreed that the physician who abidingly places his/her patients first and performs to the best of ability will be professionally successful despite the hucksters in our own camp, HCFA, Lee Iacocca, and the baying bloodhounds of business. Ignore the panicky rhetoric, forget the protective devices designed to enslave you, let them stampede the cattle through the Vatican. As caring, intelligent, independent-minded doctors, we shall prevail.

RUSSELL T. STODD, MD
HMA President

HMA/HCMS Salutes Outstanding Young Scientists

Congratulations to 40 local intermediate and high school students receiving certificates and cash awards at the 29th Annual Hawaiian Science and Engineering Fair. Held April 10 at the Neal Blaisdell Center, this extravaganza featured 448 research projects and displays. Projects included an incredible variety of scientific investigations . . . everything, and anything, from "What is the Effect of Caffeine on Cockroaches?" to "In vitro Situation of Macrophage Superoxide Anion and Hydrogen Peroxide Formation by Ciguatoxin and Black Tree Fungus." Mahalo to HMA/HCMS judges Judith Ramseyer, MD; Ronald Lee, MD; John Spangler, MD; John McDonnell, MD and awards presenters Walter W.Y. Chang, MD and George Starbuck, MD, for the many hours spent representing HMA/HCMS at the fair.

Presenting awards for the Hawaii Medical Association, President-elect Walter W.Y. Chang, MD, congratulated students on the variety and complexity of their scientific investigations.



George Starbuck, MD, representing the Honolulu County Medical Society encouraged young people to pursue careers in medicine, saying that they were the future of health care in Hawaii.

Forty young people from throughout Hawaii were recognized by HMA/HCMS for outstanding research in health and medicine at the 29th Annual Hawaiian Science and Engineering Fair.

Editorials

Obstetrics on Molokai

Primarily the result of the "deep pocket" provision in the law, which the 13th State Legislature may or may not change as of this writing (4/14/86), the physicians — all generalists — of the Molokai Clinic are precluded from delivering babies at Molokai Community Hospital. The hospital's board of trustees has mandated that the physicians carry medical malpractice insurance coverage, which currently costs some $22,000 a year for each doctor. The five of them cannot afford this, in view of the rate of newborns arriving — and most of them born of clients of DSSH — per annum (75-85 births).

The result is that the hospital has been hiring a midwife and paying her insurance premium. Supervision is effected through the University of Hawaii School of Medicine via hospital-hired "emergency physicians" and one surgeon employee.

There is nothing to prevent Molokai Community Hospital from hiring an obstetrician/gynecologist, except the economics of it.

The result is that a certain triage must be exercised. Low-risk expectancies are accepted; high-risk cases must go to Honolulu to await delivery. In general, this has been working, and perhaps it will continue — until the first tragedy occurs to either the baby or mother, or both (things can go wrong mighty quickly in OB!). Then of course there's the additional cost of transportation and housing, the time spent in false alarms, etc.

However, it is true that right here on Oahu the primary and secondary hospitals that take in maternity cases — such as Kahuku, Castle and Wahiawa — their attendings are encouraged to divert or forward high-risk cases to the tertiary center: Kapiolani Women's and Children's Medical Center, with the fetus still in utero, if possible. So, Molokai is a little different only in terms of time, distance, convenience to patients and their families, and transportation by air-ambulance. This adds up the expenses of having a baby.

The April 11 issue of the Journal of the American Medical Association contains a pertinent article with a mid-America locale; we reprint herewith excerpts from an American Medical Association news release.

"SURVIVAL OF SMALL HOSPITAL MATERNITY SERVICES THREATENED, Chicago — Rural hospitals that offer maternity services face financial pressures that threaten to close their doors, despite the fact that many of these hospitals provide a vital link in the perinatal health care system, according to a report in the April 11 issue of the Journal of the American Medical Association.

"Small community hospitals each having fewer than 500 deliveries annually are currently the site of approximately 37 percent of hospital births in the state of Iowa, observes Herman A. Hein, MD, University Hospitals, Iowa City. Neonatal mortality rates for these hospitals are comparable with those for larger hospitals handling cases of equal risk, Hein says. Also comparable are incidence and survival of very low birth weight infants, occurrence of neonatal deaths relative to the total birth population, and incidence of neonatal morbidity.

"By accepting mostly low-risk births and by stabilizing higher-risk newborns for transport to larger hospitals, small maternity services are both efficient and cost-effective, suggests Hein. 'Because these hospitals provide valuable services in Iowa's perinatal care system, their closure may seriously compromise perinatal health care for rural Iowans.'

"While not all small rural maternity services are necessary, they do provide the benefit of the social, psychological and family support of the local community and avoid prolonged hasty travel at the onset of labor, observes Luella Klein, MD, of Emory University School of Medicine, Atlanta. But to survive, small hospitals must be able to provide safe delivery for the mother and resuscitation and stabilization for the newborn. This means availability of certain emergency resources and access to larger hospitals with neonatal intensive care units. In addition to the financial constraints on individual hospitals, cuts in federal funding are seriously threatening this system of regionalized perinatal care."

J.I. Frederick Reppun, MD

It's Un-American — Doctors' Healthful Tips Limit Their Work Volume

The American Medical Association's recent vote to press for a federal law outlawing tobacco advertising certainly seems "un-American" to me. It may also be unconstitutional, but since "The American Way" is to promote more business for your members, it is certainly "un-American."

It is estimated that 50 percent of all cancers are directly related to smoking cigarettes and that 15 to 20 percent of visits to doctors' offices are from illnesses due to smoking. (Is it "un-American" for doctors to try to put themselves out of business?)

But that has been medicine's way for the last hundred years. It started with tuberculosis. Medicine was so successful in finding a cure that hundreds of TB sanatoriums had to close for lack of patients!

Then it was diphtheria and whooping cough, which are rarely seen now. Millions of lives have been saved but pediatricians have lost all those patients!

Smallpox, malaria and plague, the big killers from history, have been tamed. In fact, doctors and the health organizations of the world have eliminated smallpox from the face of the Earth.

And polio! I remember as a child the fear of drinking from a public drinking fountain — the iron lung for sure! Hospitals were filled with children and young adults with polio. Orthopedic surgeons did thousands of operations a year in correcting the deformities left by the disease. Then medicine went and discovered polio vaccine and lost all that business. Un-American!

And medicine is still at it. The other night, I saw a TV ad paid for by the Emergency Physicians Association. It was showing the dangers of drinking and driving. The ER docs sure lost business with that ad!

Doctors instruct their patients how to eat better diets and exercise more in order to decrease their risks of heart attacks. Isn't this bad business practice?

Hundreds of millions of dollars are spent each year on medical research, not to find more patients, but to find the cure for cancer, AIDS, arteriosclerosis and other diseases. It certainly seems that medicine is trying to put itself out of business.

Think what would happen if other businesses followed medicine's example. Airlines would advertise for you to stay home and enjoy your savings. McDonald's would teach cooking. Nissan would tell you how to make your '80 Datsun look like new for another five years, and lawyers would use their TV ads to encourage you to shake hands and solve your problems on a friendly basis. All "un-American!"

Medicine may be the most "un-American" of all the businesses, but it is the greatest of all the professions, and I'm proud to be one of its members.

John Withers, MD
Guest Editor

Hospice

Hospice is a concept of medical care whose time has come. It is really nothing very new, having been started at St. Christopher's in London, England, in 1967, and in the United States in 1974.

The following is a quote from the American Medical Association issued early in 1985:

"HOSPICE—special services for terminally ill patients and their families emphasizing pain and symptom man-

(Continued on page 194)

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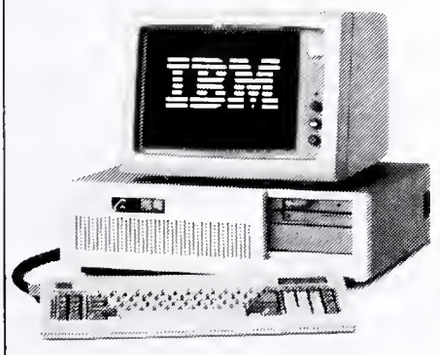

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Modern Health Hazards in Hawaii

Harry L. Arnold Jr., MD*

Hawaii is a notably healthy place to live in, or to visit. The weather is mild, stable and salubrious, almost never colder than 70 degrees (21 degrees Celsius) in the daytime at sea level, or warmer than 90 degrees (32 degrees Celsius); rarely drier than 50 percent relative humidity and never more humid than 65 percent except when morning dew is forming, or during "kona" spells — when the almost constant northeast trade winds fail for a few days.

Since Mount St. Helens erupted upon Seattle, Honolulu has been the only city in the U.S. which fully meets federal clear air standards.

Typhoons and tornadoes are very rare. There is no real "rainy season," though generalized rainfall is much more common in the winter months.

Pure mountain stream water is plentiful in every island community. It is perfectly safe to drink everywhere. Its only shortcoming: Not enough fluoride. Tooth decay is rampant.

Water in the mountain streams is not to be trusted near the shore, but it is safe in the mountains themselves. Ocean water is safe throughout the islands, for swimming, mostly.

Hawaii has no endemic diseases of any major importance, apart from these:

There is a very limited amount of endemic typhus fever, spread by rat fleas. Rats in a few areas, chiefly around Hilo, also carry the leptospira that cause Weil's disease (leptospirosis). Rats also carry the organism of bubonic plague, but the disease was last found here in rats in 1957, and the last human case was diagnosed in 1949. Rabies does not occur here. There is not reservoir of malaria or sleeping sickness.

Tuberculosis continues at a high incidence in Hawaii: More than 300 new cases are diagnosed almost every year, nearly one-third of them Hawaiian-born. Nearly two-thirds are brought in from the Philippines. Ten to 20 deaths annually are attributed to tuberculosis in a population of nearly one million.

Salmonellosis — a bacterial intestinal infection almost always acquired from food — is also mysteriously common in Hawaii, with 500 to 600 cases annually. Perhaps year-round warmth and moisture contribute to its frequency.

Trichinosis is at least as common in Hawaii as it is elsewhere in the world, and our sometimes rather casually cooked wild boar is almost as common a source as are our domesticated pigs. But insufficiently cooked pork is unsafe, of course, the world around.

Finally, viral hepatitis has surfaced in Hawaii, as elsewhere, its spread greatly enhanced by inadequate sanitation in the communes of the counterculture in the late '60s. The state Health Department is constantly vigilant against this threat to communal health.

Several common non-infectious North American health hazards — snakes, bears, mountain lions, poison ivy, and ragweed, for instance — are unknown in Hawaii.

Marine Hazards

The ocean in which Hawaii lies is one of our great attractions, of course, and visitors, even more than residents, spend a lot of time in it and on its beaches. There are some health risks directly associated with the sea.

Sun. Hawaii's sunshine is perhaps the most intense in the United States. Las Vegas' sun is five units stronger than that in Palm Springs or West Texas; Hawaii's is five units stronger than that of Las Vegas. Your Weston photometer really *does* read over 10 — it's not broken! And, you will get a bad burn here in half the time it might take in more northerly latitudes.

Take a small dose of sunlight the first day, and increase it slowly; remember that haze or light clouds *don't* protect you; don't fall asleep in the sun and if you're pretty pale, use a sunscreen that prevents burning but permits tanning. The label will tell you which ones offer such protection. Pre-sun, Eclipse, uval, Sol-Bar, Sundown, Super shade, and Tanya are reliable — but limit your time in the sun, too! If you get a burn, take aspirin and apply Unguentine. If it's bad, 1 percent indomethacin in isoprophyl alcohol may help. (Spoken like the dermatologist that he is!/Ed).

Water. You can't breath underwater, and every year in Hawaii about 25 people drown, almost all while swimming. Ocean water isn't quiet; it's all moving somewhere. The water in waves is only moving up and down, but a breaking wave carries water ashore and it has to run back into the ocean. Result: Undertow, a strong current away from the shore, strongest when the waves are breaking and when the bottom is sandy and deep, worst of all where there is no shallow coral reef. *Never swim in such an area* unless you are a powerful, experienced swimmer, with a buddy as good at it as you are. If you're carried out to sea, float quietly until the waves start to wash you again.

Surfing. Bodysurfing and board surfing are deservedly popular sports in Hawaii. In addition to the usual risks incident to swimming, they present a few special risks of their own.

Board Injuries. A loose surfboard, whether your own or another's, is a very dangerous object. Almost every year in Hawaii, someone is fatally injured by being struck in the head or abdomen by a "free board." Hang on to your own, and be alert for anyone else's! The leashes now in general use are an effective preventive measure.

Surfer's Bumps. These firm, painless lumps on the uppershin or top of the foot are far commoner in Southern California than in Hawaii. This is because the water is so much colder there, and no one wants to lie down in it; therefore, boards are customarily paddled from a kneeling position instead of a prone one. Far more pressure — which is the cause of the bumps — is thus applied to the knees and the tops of the feet.

Fractures and Dislocations. Don't gambol lightheartedly in big breaking waves. Experienced, powerful, athletic swimmers have suffered fractured shoul-

* Editor Emeritus, HAWAII MEDICAL JOURNAL

ders and dislocated hips and brokcn necks in such waves. Water is a powerful force, and you should respcct it. Never dive into either a breaking wave or water of unknown depth.

Marine Animals

Some sea animals are potentially harmful, though the bad ones aren't very numerous, and you certainly needn't be afraid to go swimming because of them. Let's take a look at a few.

Sharks. There are sharks around the islands, though they rarely venture into the shallow water inside the coral reefs. Less than 20 shark attacks with a fatal result have ever occurred in Hawaii. If you *should* (perish the thought!) encounter a shark, move slowly away from it without floundering or splashing, if you can; if it's very close to you, pound on its nose or head. Don't surf until sunset — come in before the sharks come in.

Eels. The moray eel — you can see one in the Honolulu Aquarium — will not pursue you, but if you are so reckless as to put your hand under a coral ledge, and a moray is lounging there, he will defend himself not by running away, but by biting you. His teeth are razor-sharp and make multiple clean cuts if you're lucky enough to be able to pull your hand away. It's safest not to put your hand under a coral ledge in the first place! Other eels are timid and harmless.

Portuguese Man O'War. There are a few other kinds of "jellyfish" in Hawaiian waters, but the Portuguese Man O'War, *Physalia utriculus,* is the commonest by far. It's a little deep-blue cluster of soft flesh from half-an-inch to an inch-and-a-half long, topped by a colorless, transparent, one-to-three-inch bubble-like "sail," and trailing three to six spaghetti-like tentacles, perhaps 1/16-inch thick and from three to 10 feet long. These tentacles, with which it stings and entraps its prey, will sting you too, on contact; they're coated with thousands of microscopic cysts, each one of which snaps out a stinging barbed tentacle on contact with fresh water or skin, and injects a poison into you. It only hurts; it isn't serious and it's never fatal.

The pain can best be relieved with a light sprinkling of meat tenderizer rubbed into the wet skin; if this isn't available, papaya pulp or crumbled papaya leaves will serve. Alcohol (rubbing or drinking type, as available) or gasoline are next-best. Shaving the lesion with a knife edge or safety razor will prevent further stinging, though it won't relieve the pain. Rubbing with sand makes it worse. So does fresh water.

you can avoid the Portuguese Man O'War by not swimming where you notice that dead ones have been washed up onto the beach. They always occur where the wind is blowing toward the shore.

Other jellyfish. There are a few other stinging marine hydroids in Hawaii, but they're rare and usually only mildly annoying. We are happily entirely free of Northern Australia's rich variety of lethal or near-lcthal stinging jellyfish.

Sea Urchins. There are several varieties of these spiny marine creatures, but the common *wana,* as the Hawaiians call it, is the troublesome one — if it is stepped on. The half-inch to two-inch-long, brittle, blue-back spines penetrate your skin and break off, which hurts. Very rarely, a fragment may persist so long that a doctor has to cut it out. Usually, just soap and water, gentle massage, and perhaps rubbing an antiseptic or antibiotic ointment like Betadine or Polysporin ointment into the wound twice a day will take care of it fairly well. Soaking in vinegar is a popular remedy too, but of doubtful efficacy.

Coral. Coral, especially if it's a bit broken, has sharp edges and is almost as dangerous as broken glass to walk on barefoot. Rubber-soled canvas shoes or reefgoing *tabis* are standard equipment for local fishermen. Coral cuts and scrapes are not "poisoned" by their source, and if they are cleaned and kept clean, they will heal normally; they rarely require medical attention. Treat them as described above under sea urchin injuries.

Cone shells. Rarely, someone is stung by the venomous little darts that are a means of defense for some species of cone shells. It's rather like a wasp sting. An expert knows which ones to avoid, but since cone shells are a little tricky to identify, and two of those found in Hawaii *Conus textile* and *Conus Striatus* — have a potentially dangerous sting, just don't put *any* live cone shells in your trouser pocket, or handle them carelessly. Dead ones are obviously not dangerous.

Certain fish species. *Stonefish, scorpion fish, lionfish, zebra fish (Pterois volitans),* and *toad fish (Scorpaena plumeria):* If you see one of these, DON'T TOUCH! Their spiny dorsal fins are venomous and their sting is excruciatingly painful, often requiring expert medical attention. First aid is as for Portuguese Man O'War or other stings: Apply meat tenderizer or papaya pulp, or soak the part in hot water, as hot as you can bear.

Fish poisoning. The mahimahi (dolphin) and other fish of the *Scomber* genus, when not perfectly fresh, may rarely contain such a high concentration of histamine that within 20 to 40 minutes after eating them, one experiences a throbbing headache, flushing of the face, and sometimes itching or actual hives: a histamine reaction. This is known as scombroid fish poisoning. It's really nobody's fault. Happily, it occurs only very rarely, and even more happily, it isn't serious, doesn't last long, and is easy to stop with a good dose of antihistamines. See a doctor.

Ciguatera fish poisoning, on the other hand, is more serious. It does occur in Hawaii; but it is common only in the South Pacific. It is even more rarely fatal; most victims are just made very ill with numb, tingling lips and extremities, nausea, vomiting, bellyache, diarrhea, headache, and other symptoms. It is caused by a toxin found only occasionally in certain reef fishes and the carnivorous fish that eat them; so it is — in Hawaii — quite unpredictable. It occurs mostly on eating imported fish from south of Hawaii. Medical attention is urgently indicated in most severe cases.

Puffer fish or balloon fish *Tetraodon* poisoning is extremely dangerous. Only a specially trained, Japanese, professional puffer-fish *("fugu")* chef is competent to identify these toxic fish by species and throw away the dangerous parts before cooking. Never eat them under any circumstances! A Japanese proverb, perhaps apocryphal, is said to go thus: "Would like to eat *fugu* — but am afraid to die!"

Marine plants. Seaweed is pretty harmless, in general; some varieties, in fact, are gathered for table delicacies. But one kind is worth a word of warning. *Seaweed Burn:* A threadlike, leafless, blue-green alga known as *Lyngbya majuscula* appears in the spring and summer in the shallow water off the North Shore of Oahu, and often becomes so abundant that it makes the water turbid. The surf breaks it up into tiny fragments, which work their way under bathing suits and drift down to the lower part of the bra top or the crotch of the pants. There they do no harm as long as you remain in the water, but after you come ashore and dry a little, they begin to burn the skin. Within five or 10 minutes it is too late to prevent a shallow but painful burn of the skin of your tender parts. The only preventive is to shower and change within five minutes of leaving the water.

Happily, this seaweed has become far less common in recent years, and on beaches other than those of North Oahu and perhaps Kauai it seldom bothers anyone. If you do get it, treat it as you would a severe sunburn. It's no worse than that, as a rule.

Plants To Watch Out For

Plant Dermatitis. Hawaii is very safe in this regard, for there is no poison ivy, poison oak, or poison sumac here (except a very few specimen plants of the Japanese lacquer sumac, *Rhus vernicifera.*

Mango rash. The common mango, *Mangifera indica,* is abundant in Hawaii, both wild and cultivated. Its delicious fruit is highly prized. But all parts of the tree, especially the sap, the leaves, and dust from the skin (but not the pulp) of the fruit, can cause allergic dermatitis —

in persons who have had previous contact with poison ivy, poison oak (Rhus Toxicodendron) or the Japanese lacquer tree. Natives of Hawaii never exposed to these sensitizing varieties virtually never get mango rash — a curious, still unexplained fact of life which is also observed in the Philippines, Guam, Mexico, Cuba, and Puerto Rico.

Like all contact allergy, mango allergy is acquired only *after* from one to three or four episodes of contact. Since your palms are usually heavily contaminated, and your eyelids are far and away the most sensitive area of skin, itchy eyelids will usually be your first warning signal, the result of touching your face with unwashed hands. You can't wash the sticky resin off with soap and water, and you need intensive cortisone therapy to keep you from becoming a hospital case. See a doctor! If you are allergic to mangoes, it doesn't interfere at all with your enjoyment of them, just as long as you have someone peel and slice the fruit for you to eat. In fact, eating it will tend to gradually diminish your sensitivity — so enjoy!

Cactus. The wild "prickly pear" (in Hawaiian, *Panini,* which means "unfriendly fence"!) is a tasty morsel, protected by conspicuous thorns nearly an inch long. You should be aware that it is also protected by invisible thorns less than 1/32 of an inch long that completely cover both the leaves and the fruit. So don't touch the skin of either one: spear the fruit on a knife or stick and peel it without touching it.

Philodendron. The common glossy-leaved "taro vine," *Pothos aureus,* is harmless, but its velvety-leaved cousins, the philodendrons, which come in six or eight different species, sensitize the human skin almost as efficiently as poison ivy does. In India, they are the commonest cause of plant dermatitis largely because of a superstition that having one in your house will bring in riches; it is called the "money plant" there.

Dieffenbachia. All the species of the **Dieffenbachia** ("dumb cane") genus have in common with their cousin taro *(Colocasia esculenta),* the effect of severely burning the mouth and throat because of microcrystals of calcium oxalate. Hence "dumb cane": it silences you for an hour or more. Taro leaves *(lu'au),* with the accent on the second syllable) must be boiled to rid them of this effect.

Truly Poisonous Plants. Plants that are poisonous if eaten are pretty uncommon in Hawaii. Oleander, *Nerium indicum,* is one, but the only known cases of poisoning by it — two soldiers who used peeled sticks of it to broil meat over a fire — occurred in 1919; the leaves are tough and don't taste good. Yellow oleander, *Thevetia nereifolia,* contains thevetin, a digitalis-like compound, but *it* doesn't taste good either and it would take more than a nibble to do harm to anyone. The pretty little yellow Apple of Sodom, *Solanum sodomeum* (in Hawaiian *Popolo),*contains the poison solanin, like its sprouting cousin, the Irish Potato. The castor bean, *Ricinus communis,* contains ricin, one of the two or three most poisonous substances known; it's harmless by mouth but a surface injury would admit a lethal dose of it readily into your blood stream.

Poinsettia pulcherrima, the Christmas poinsettia, has a firmly established but undeserved reputation for being poisonous; soup made from it was once fed to nursing mothers in Mexico to improve lactation. Don't add it to your salads — it doesn't taste good — but don't worry about it either. Plumeria (frangipani) is harmless, too.

Edible mushrooms are not common in Hawaii, and, as elsewhere, they are not easy to identify. Only the "Jew's Ear" bracket fungus is safe for an amateur to harvest and eat.

Bacteria and Fungi

Scarlet fever is almost unknown in Hawaii, and is not even regarded as a contagious disease, for practical purposes. The "strep throat," no more or less common here than elsewhere, is almost its only manifestation.

Fungus diseases of the skin — athlete's foot and ringworm — are a little less common here the year round than in most North American cities in the summer time. Epidemic ringworm of the scalp, such a plague a few years ago throughout North America, has never been encountered in Hawaii. The deep fungus infections, blastomycosis, histoplasmosis and coccidioidomycosis, are not found here at all; actinomycosis is rare; only sporotrichosis occurs occasionally, on Oahu and in Hilo.

Hansen's Disease. This is still endemic in Hawaii but it is rare, now; of the 20 or 30 cases diagnosed annually, all but four or five are brought in, mostly from the Philippines or Samoa. It is surely contagious for the few persons who have inherited susceptibility to it; for the vast majority, however, it behaves as if it were only very mildly contagious. Treated patients do not pass on the infection, and isolation is no longer practiced.

Apart from Hansen's Disease, there are no "tropical" diseases at all in Hawaii. Though we are in the tropics geographically, we are not tropical otherwise. This is one of the benefits, in addition to protection from hurricanes, conferred on us by the Pacific barometric "high."

Land Animals

Hawaii is a safe place to hike and explore, wild-animal-wise. There are no snakes, wolves, bears, lions, or any other predatory animals to be concerned about. The few wild pigs are in pretty remote areas and are unlikely to be aggressive; the wild goats and deer and sheep will certainly not approach you. Mongooses and rats are everywhere but they are more afraid of you than you are of them. It's our "insect" (and other arthropod) life that is our only concern so far as animal hazards go, and it's not very hazardous.

Insects

Mosquitoes. We have a day mosquito, *Aedes aegypti,* and a night mosquito, *Culex quinquefasciatus.* Apart from two minor epidemics of dengue fever, in 1909 and again in 1943, *Aedes* has never spread any diseases here. Unlike Anopheles mosquitoes, they cannot spread malaria, and they are not nearly abundant enough to transmit filariasis, which is so common in Samoa. They merely induce itchy bites, which bother malihinis (visitors) far more than kamaainas (old-timers). Many old homes have screens on the bedroom doors but not around the living room, And, since mosquitoes don't travel far, you can reduce your own mosquito population by close attention to keeping potential breeding places — standing water — unavailable to them.

Flies. The common house fly, *Musca domestica,* is with us in Hawaii and from time to time there have been rare reports of localized infestations by "cluster" flies; but in general, outdoor living in Hawaii is remarkably untroubled by flies, gnats, or other pesky flying critters. The biting black fly, deer fly, and horse fly are not seen — or felt! — here.

Stinging Insects

Honeybees, yellowjackets, paper wasps, mudwasps, hornets, and "carpenter" bees (black bumblebees) are common in Hawaii. They're no more tolerant of fancied threats from people here than they are anywhere else in the world. If you're stung, meat tenderizer and a little water is the best and fastest way to get relief; rub it in. If you start to swell, or get hives, or both, GET TO A DOCTOR OR A HOSPITAL IMMEDIATELY!

This isn't a particularly Hawaiian hazard; it's just that any such reaction to a sting may be the forerunner of a serious, potentially fatal anaphylactic reaction. Prevention is far more likely to succeed than an attempt to cure it after its onset.

Centipedes: We have just one species of centipede, *Scolopendra subspinipes,* in Hawaii. A baby is blue-green and perhaps only a couple of inches long, while the dark brown adult may be nearly half an inch broad and six or eight inches long. They sting with a pair of modified front legs, so that two little punctures are produced. The pain is more severe than that of the average hornet or wasp sting, but allergic reactions are very rare. Prompt rubbing with garlic, or meat tenderizer, may give relief of pain.

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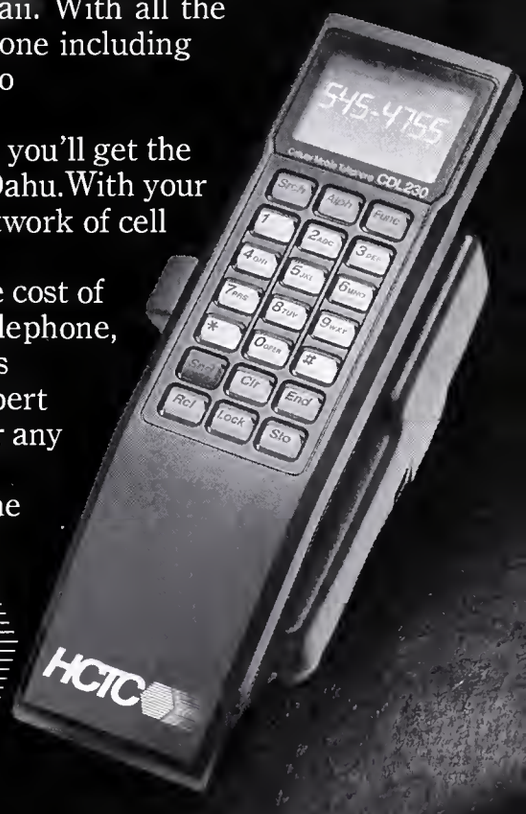

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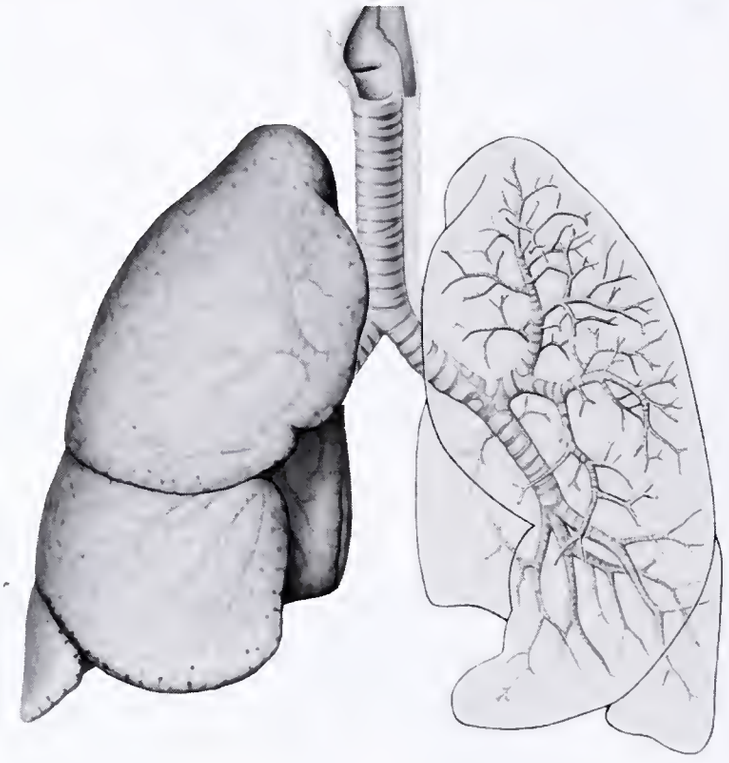

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Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Summary. Consult the package literature for prescribing information.

Indications: Lower respiratory infections, including pneumonia, caused by susceptible strains of *Streptococcus pneumoniae, Haemophilus influenzae,* and *S pyogenes* (group A beta-hemolytic streptococci).

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Administer cautiously to allergic patients.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:

- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- In renal impairment, safe dosage of Ceclor may be lower than that usually recommended. Ceclor should be administered with caution in such patients.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:

- Gastrointestinal (mostly diarrhea): 2.5%.
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, erythema multiforme, serum-sickness-like reactions): 1.5%; usually subside within a few days after cessation of therapy. These reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1%.

Abnormalities in laboratory results of uncertain etiology

- Slight elevations in hepatic enzymes.
- Transient fluctuations in leukocyte count (especially in infants and children).
- Abnormal urinalysis; elevations in BUN or serum creatinine.
- Positive direct Coombs' test.
- False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinitest® tablets but not with Tes-Tape® (glucose enzymatic test strip, Lilly).

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

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Scorpions. There is one small species of scorpion in Hawaii, *Isometrus maculatus,* and it has become very rare since the deliberate introduction, in 1934, of the *Bufo* toad, which eats them. They are about two inches long when fully grown, and inflict a sting with the tip of the tail — about as severe a sting as that of the centipede. No general symptoms are produced by either sting.

Other Arthropods

Spiders. Nothing to worry about here! The justly famous Black Widow spider, *Latrodectus mactans,* occurs in Hawaii in small numbers, but is not venomous here. The Brown Widow, *Loxosceles reclusus,* probably occurs here, but seems to be rare. Its bite needs prompt surgical excision! The spiny red spider, *Gasteracanthus cancriformis,* is quite common in Hawaii, both outdoors and indoors, and it can sting, though it is not at all aggressive even if disturbed. The big fuzzy house spider, *Heteropoda venatoria,* is welcomed and protected by *kamaainas* because she eats mosquitoes; like the decorative yellow-marked garden spider, *Argiope appenca,* it has no sting.

Bird mites. Wild birds in Hawaii, perhaps mynahs and doves more than the others, harbor a biting mite, *Liponyssus bursa,* which produces a characteristic shotty little papule that itches for at least a week before subsiding. These mites are carried on the breeze from the nests through window screens into houses, where they settle on chairs and beds. Usually, a bird's nest in or under the eaves of the house, or in a nearby tree, or doves on the apartment lanai, are responsible.

Scabies. Hawaii, almost wholly free from scabies for close to 30 years, has not escaped the worldwide, hippie-assisted revival of this annoying disease. It has spread gradually from thie hippie commues into the general population. Be aware that in cleanly people, it may manifest itself very subtly, without a conspicuous or characteristic eruption. Persistent itching, especially in crotch and armpits, indicates a visit to the doctor.

Pediculosis. The ubiquitous louse, *Pediculus corporis* or *capitis,* hasn't missed Hawaii, but here as elsewhere is nowhere near as common as the sexually transmitted crab louse, *Pthirus pubis.* Both yield readily to medical treatment.

Ticks. The dog tick, *Rhipicephalus sanguineus,* is common in Hawaii. None of the human ticks occur here, though *Otobius megnini,* a cattle tick, was found on hunters on Molokai recently. None carry human disease.

Chiggers. There are no chiggers in Hawaii.

Fleas. Only the cat flea, *Ctenocephalides felis,* is found in Hawaii on either dogs *or* cats, and it is not hard to control. *Xenopsylla cheopis,* the rat flea, infests rats, but doesn't bother man unless he handles the rats.

Gnats. "No-see-ums" don't occur in Hawaii, nor do sand "fleas." "Fungus gnats" may fall into a drink, rarely, but they don't bite.

General Remarks

Medical care in Hawaii is, and has been for over half a century, at a high level of excellence. The Hawaii Medical Association was incorporated in 1856, under the Hawaiian Monarchy; the Board of Health and had been created earlier, in 1839. Licensure to practice in Hawaii has been carefully regulated by examination for many decades, and still is. The University of Hawaii has a four-year medical school, with more than a hundred practicing physicians participating along with Honolulu's five major hospitals in the teaching program. High-level medical conferences, seminars, and symposia bring world-class medical experts and teachers to Hawaii frequently enough to bring all practicing physicians up to date as a part of continuing medical education.

Apart from our mysteriously high incidence (and seriousness) of asthma, we have a healthy state, and a high-grade potential for keeping it that way.

HMSA Answers Physicians' Questions

Q: Could you please clarify your policy regarding your revised Administrative Operating Procedures of the Participating Physicians Agreement in reference to providers of care who discount their charges below HMSA's Eligible Charge level for HMO/PPO and other non-governmental program patients? That is, will you reduce your physicians' Eligible Charge profiles if they accept less from an IPA/PPO?

A: HMSA's Participating Physicians Agreement and the Administrative Operating Procedures are designed to take into account all of a physicians' charges in determining Eligible Charges. Our objective is to assure that fees charged to your HMSA patients are fair when compared to fees charged to beneficiaries of other non-government health care plans. This particular provision in the Administrative Operating Procedures is not applicable to courtesy discounts to individuals or to health care plans where the physician is compensated on a capitation basis such as in an HMO.

Q: Does HMSA provide benefit payments for biofeedback services?

A: Biofeedback services are currently excluded from HMSA health plan coverage. However, as of Nov. 1, 1985, HMSA initiated a two-year pilot program to determine whether biofeedback is a cost-effective alternate treatment for certain chronic pain conditions. Under this pilot program, benefits for biofeedback treatment will be paid on a **prior approval** basis.

General criteria for benefit payments are:

a. Patient is suffering from the following types of chronic pain conditions — chronic muscle contraction headaches, mixed headaches of vascular and muscular origin, migraine headaches, or chronic pain syndrome of physical or organic origin.

b. Patient has a history of relatively high medical or drug utilization.

Physicians who have such patients that meet these criteria — and who believe that biofeedback would be beneficial for the patients — should submit a preauthorization request to:

HMSA
Claims Research Analyst
Claims Administration Department

In addition to the patient's specific complaint, please include information on the patient's medical history, utilization of health care services, proposed treatment, and prognosis.

HMSA will expedite the review of your request and let you know whether benefit payments will be made under the pilot program.

SUMMARY
of the proceedings of the House of Delegates at the 129th annual meeting of HMA

The 129th Hawaii Medical Association Annual Meeting was held Oct. 12 through Oct. 14, 1985, at the Kona Surf Resort at Keauhou, Hawaii. The House of Delegates (HOD) met on two occasions to consider the annual reports of commissions and committees, reports from leadership and resolutions submitted by the members of the Association. Three reference committees were appointed to review assigned agendas and hear testimony from interested members. Reference Committee reports and recommendations were presented to the HOD for final actions on Monday, October 14, 1985.

Speaker of the House Herbert Uemura called the House to order Saturday, Oct. 12, at 1:40 p.m. Milton Howell gave the invocation, followed by a moment of silence in respect for 10 members who died in 1985. Their names and years of membership are: Richard Chang (29), Clifford Druecker (32), Tadao Fujii (43), Howard Honda (48), Leonard Honl (42), Joseph Kam (34), Robert Katsuki (46), Masato Ohtani (45), Thomas Richert (45) and Theodore Tomita (38). Milton Howell was appointed Parliamentarian; John Spangler and A. Scott Miles were appointed Sergeants-at-arms.

Secretary James Lumeng called the roll. Present: William Hindle, Russell Stodd, Sakae Uehara, James Lumeng, Walter W.Y. Chang, Ben Hur, Allan Kunimoto, Thomas Grollman, Milton Yolles, Robert Laird, Arch Wigle, H.H. Chun, Gladys Fryer, Philip Hellreich, Douglas Bell, II, Paul DeMare, Myron Shirasu, Peter Kim, Donna McCleary, Minolu Cheng, William Iaconetti, Calvin C.M. Kam, Herbert Uemura, Milton Howell, J. Alfred Burden, Ann Catts, William Dang, George Goto, George Mills, Ernest Bade, Craig Kadooka, A. Scott Miles, Desmond Wong, Andrew Don, Gregory Park, Steven Moser, William Mitchell, Helen Percy, Timothy Crane, Edwin Gramlich, Robert Young, John Matsuura (student delegate), Dean Inouye, (student alternate delegate), John McDonnell, Robert Clingan, Michael Dimitrion, Nathaniel Ching, Bernice Coleman, Aurora Macapinlac, William McKenzie, Nadine Bruce, J.K. Sims, Russell Hicks, John Houk, Philip McNamee, Amelia Jacang, Edward Boone, Robert Palmer, L. Jack Kirkham, John Berthiaume, Fortunato Elizaga, Stephen Wallach, Walter Quisenberry, Don Parsa, Derek Pang, Stanley Shimoda, John Spangler, Bernard Scherman, James Stewart, Frederick Reppun, Gordon Liu, Warren Ono, Michael Okihiro, and John Drouilhet. Also present: Legal Counsel, V. Thomas Rice, HMA Auxiliary President — Lila Johnson, Auditor — Dave Riley, AMA President Harrison L. Rogers, AMA Board of Trustees Chairman Alan Nelson, Chairman of the Board of Medical Insurance Exchange of California (MIEC) Bradford Cohn, Chief Underwriter of MIEC Ron Neupauer, 18 medical student observers from the John A. Burns School of Medicine and HMA staff.

The minutes of the 128th Annual Meeting (1984) and all monthly Council Meeting minutes since the 1984 HOD session, as published in the HMA Journal, were approved.

Speaker Uemura welcomed all attendees and expressed appreciation to the Arrangements and Scientific Program Committee members involved, Dr. Stodd, Chairman, and to the staff for their efforts at this meeting. Special thanks was extended to Dr. Robert Laird and the "Big Island" members for hosting the meeting in such a beautiful location.

President William Hindle introduced Harrison L. Rogers, AMA president, who gave a most inspiring opening address on the current and future trends in medicine, especially the importance of constraining health care costs with continued emphasis on services and quality of care.

President Hindle, in his address to the House, gave an overhead screen presentation which covered a number of medical issues such as physicians' responsibilities as the guardians of quality of medical care and as the patients' advocates; peer review; communication to the community, colleagues, state associations, county societies and to the AMA; tort reform in medical liability with the necessity to have effective lobbying and physician/legislator contact.

Speaker Uemura presented the Nominating Committee Report and 1985-86 slate of nominees for all elective offices. Additonal nominations were made from the floor of the House for the position of Councilor from Honolulu County. The motion was made, seconded and passed that the slate and additional nominees be accepted and nominations closed. The election was to be held on Monday, October 14, 1985, as the last order of business of the HOD.

President Hindle highlighted a number of the pertinent achievements HMA has made during the past year. This listing as well as the recommendations are covered in the Report of the President (pages 11-19 of the Handbook), which will be reviewed by a Reference Committee.

An update report on the concept of the funding of the new HMA building and land was presented to the House by Chairman Allan Kunimoto, detailed by slides. The Report of the Building Committee (page 46 in Handbook) was to be reviewed by a Reference Committee, where Dr. Kunimoto was to be available for questions.

Annual reports of commissions and committees, leadership reports and resolutions submitted by the membership were referred to reference committees. The three reference committees were appointed as follows: Miscellaneous Business: James Stewart (chairman), H.H. Chun, Peter Kim and Robert Palmer; Public Health: Russell Hicks (chairman), Robert Laird, Gladys Fryer and Joel K. Sims; Finance and Administration: Andrew Don (chairman), Ernest Bade, Ann B. Catts and Edward Boone. Reference committee chairmen were requested to post their agendas and to publish any changes in advance.

A change in the Order of Business of the House (Section 4.08 of HMA Bylaws) was discussed and approved. Due to the necessity of scheduling the Annual Banquet for the evening of the first day of the meetings the President-elect will be installed as the president for 1986 and make his presidential address. Installation of all other new officers will take place as the final item of business on the last day of the meeting. There were no objections to this change in the Order of Business.

The first meeting of the HOD adjourned at 3:10 p.m. on October 12, 1985; it was to be reconvened at 1:30 p.m. on October 14 to receive for action on the reports and recommendations of the Reference Committees.

GENERAL MEMBERSHIP MEETING OF THE HMA

The General Membership Meeting of the HMA was called to order at 3:30 p.m. on Saturday, October 12, 1985, at the Kona Surf Convention Center by President William H. Hindle.

In compliance with the HMA Bylaws, Sections 6.04 and 6.041, an Annual Meeting of the members shall be held during a recess in proceedings of the House of Delegates prior to adjournment of the first day's meeting of the House for the purpose of ratifying any Association business referred to it. The only business of concern were amendments to the HMA Charter approved in 1984, of which notice had been sent to members and substance had been accepted and approved by them, and was thus resolved. There being no further business, it was moved, seconded and approved that the 1985 Annual Membership Meeting be adjourned at 3:30 p.m.

The House of Delegates was reconvened on Monday, October 14, 1985, and called to order by Speaker Uemura at 1:30 p.m. The following reports and recommendations of the Reference Committees were adopted:

REPORT OF THE PRESIDENT: Recommendations 1 through 17 were adopted, not adopted, amended, filed, or referred as follows:

1. That the Nominating Committee nominate a single slate of officers, was filed. The current Bylaws give this option to the Nominating Committee, that whenever possible, there shall be more than one candidate for each elective office.

2. That the Annual Meeting Committee consist of five members with staggered terms (nominated by the President and elected by the Council in the same manner as the Building Committee, Finance Committee, and Pension Committee), was adopted.

3. That the President-elect serve as Chairman of the Annual

Meeting Committee (in addition to the five elected members), was adopted.

4. The President-elect to serve as Special Chairman of the Membership Committee. Adopted as amended to: The President-elect should be encouraged to be an active member of. . . .

5. That an Advisory Board be established to include the current officers, President-elect, Immediate Past President and Commissioners. This was not adopted.

6. Since the Advisory Board's existence was turned down, its duties became moot.

7. That each commissioner be required to report quarterly to the Council in writing giving a summary of the activity (such as number of meetings and attendance) of the committees within their commission. This should include the commissioner's recommendations for course of action and specific objectives for each of the various committees in his commission. This was not adopted since it was covered adequately in Bylaws Section 8.00.

8. That the Commissioners be required to report annually in writing to the House of Delegates including a review of the missions, goals, and function and accomplishments of each committee in his commission. This was not adopted for the same reason.

9. That the Annual Meeting of the HMA should be held in turn on the islands of Maui, Kauai and Hawaii in rotation except in special situations, Oahu should be omitted from the rotation of the location of the Annual Meeting. This was not adopted.

10. That twice a year visitations by the President of the HMA and a staff member to the component societies on Hawaii, Kauai, and Maui be carried out. This was not adopted.

11. That the President-elect a) be encouraged to attend the AMA Leadership Conference and each AMA Annual Meeting, and b) be encouraged to attend the Interim Meetings and major conferences of the AMA as necessary or possible. This was adopted as amended above.

12. This recommendation was amended to read: When financially feasible, as determined by the Finance Committee, the budget for travel by staff was to be increased by 45,000 a year so that key staff members can attend at least one national meeting of the AMA each year, such as the Communications Conference, Legislative Conference, or the Leadership Conference (or make indepth visits to the Headquarters of the AMA in Chicago and/or Washington D.C.). This was adopted as amended.

13. That a position of Executive Vice President be established to be filled by a physician member to serve as a continually visible physician leader. It should be a permanent staff position beginning on a part-time basis in 1987 (with scheduled increase in time commitment with appropriate increase in funding) until a full time position as "staff physician" is attained. The HOD referred this for further study to the Bureau of Research and Planning.

14. That a position of Legal Counsel to the HMA (a licensed attorney certified to practice before the Bar in the State of Hawaii) be established by 1989 on a part-time basis with scheduled increase to full-time commitment on staff. This was also referred to the Bureau of Research and Planning for further study.

15. That the minutes of each Committee meeting should be approved and signed in their final form by each Chairman. The minutes should indicate what actions are being taken by the Committee to carry out the specific functions of the Committee. This was not adopted.

16. That a subcommittee of the Legislative Committee be established for "legislative liaison." This was referred to the Legislative Committee for its consideration and report back to the Council.

17. That the first item of business of each Committee and Commission each year be to review the HMA's purpose, missions and goals and to review specific functions of the Commission and/or Committee. The Commissioners/Committee Chairman are to be responsible for corrections, additions or deletions to the Commission/Commitee's specific functions. This was adopted.

President Hindle was particularly commended for addressing so many of the concerns of the members and for his comprehensive report and recommendations.

REPORT OF THE TREASURER AND FINANCE COMMITTEE

The report and recommendations were adopted: 1) That the 1986 dues remain at $490.00 per member; 2) that the balanced budget for 1986 was presented by the Finance Committee be adopted; 3) that the auditors for HMA during 1986 continue to be Alexander Grant & Co. and 4) that as a result of the time study done, HMA provide services to HCMS (Honolulu County Medical Society) for $125,000.00 in 1986.

REPORT OF EXECUTIVE DIRECTOR

The recommendations of the Executive Director were acted upon as follows: 1) That HMA provide educational seminars or sessions on the changing environment of medical practice to each component society (adopted); 2) that HMA develop a plan to become recognized as the resource in the State of Hawaii for medical and health-related information; 3) that HMA begin to develop plans to stabilize or even reduce its dues, and 4) that HMA develop a plan for continuous effective contact with state and national legislators. All of these were referred to the Bureau of Research and Planning for study and recommendations to the Council in 6 months. Recommendation 5) that HMA work diligently to develop as soon as possible sections within HMA for students, residents, and the hospital medical staff was referred to the Bylaws Committee for a report to the Council.

REPORT OF LEGAL COUNSEL

The Report of Legal Counsel was adopted with its recommendations: that the members support Legal Counsel's efforts, and that the matter of his expenses and attendance at the meetings of the Society of Medical Association Counsels (SMAC) be referred to the Budget and Finance Committee for consideration, with a report back to the Council.

REPORTS OF COMPONENT SOCIETIES

The House adopted the report of the *Honolulu County Medical Society* with its two recommendations which were: 1) to continue to pursue an increase in membership, keep our members informed, add support to organized medicine and keep our dues at a minimum; 2) explore ways, with the help of the Communications Director (PR) and our Auxiliary, to establish a credible image of our community. The reports of the *Hawaii County Medical Society, West Hawaii Medical Society, Maui County Medical Society,* and the *Kauai County Medical Society* were filed.

OTHER REPORTS

The reports of the *Secretary, AMA Delegates, HAMPAC, Editor, Hawaii Medical Journal* were filed. The Report of the *AMA Auxiliary President* was filed with a commendation and congratulations for the 6 awards the Auxiliary received from the AMA, and to assure it of HMA's continued support.

SPECIAL REPORT OF THE STRATEGIC PLANNING TASK FORCE (SPTF)

The House of Delegates adopted the Report of the SPTF and its recommendations, as a whole, and extended grateful appreciation to the SPTF for its untiring efforts, leadership and guidance in completing this comprehensive long range plan to fulfill the Missions and Priorities of the Hawaii Medical Association. The recommendations were: COMMISSIONERS: To be appointed annually by the President. Each shall serve no more than 4 consecutive years; this requirement, however, may be waived by Council. A Commissioner shall oversee and be actively involved with each of the committees under his/her jurisdiction. Timely reports of committee activities and/or recommendations are to be presented to the HMA Council and annual reports submitted to the House of Delegates. Commissioners are to recommend to the President candidates for Committee Chairmen.

CHAIRMEN: Shall be appointed annually by the President, shall serve no more than 3 consecutive years as Chairman; however, this requirement may be waived by the Council. It was recommended that the Chairman appoint a Vice-chairman and assist in the selection and preparation of a future chairman for that committee, and recommend to the President candidates for Committee membership.

LONG RANGE MONITORING: That a *Committee on Policy Analysis and Planning* be established, in order to meet at least once a year and ensure that the administration of the Missions/Goals and Priorities is functioning properly. A report to the Council is to be made by July of each year. Members of the Committee shall be the current President, who will serve as Chairman, the 5 Immediate

Past HMA Presidents, the Executive Director and the Assistant Executive Director for Community Affairs.

DELETIONS, ADDITIONS, REVISIONS: The Commission on Peer Review is to be abolished and the committees currently under it will be moved to the Commission on Community, Professional Relations, and Peer Review. The title of the Peer Review-MIEC Committee is to be changed to the Medical Liability Insurance Review Committee. In addition, there shall be a Physicians' Committee (Impaired Physicians).

The Commission on Membership Services will be deleted and committees under it will be moved to the Commission on Internal Affairs. Public Affairs/Media Response and the TV-Radio Committees will be combined into the Awards/Media Committee. The Japanese Speakers Bureau is to become a subcommittee under the Speakers Bureau in the Commission on Community, Professional Relations and Peer Review.

The MD/RN Relationships Committee is to be changed from a standing committee to an ad hoc committee on call. The Hawaii Health Institute is to be dissolved. HMA/HMSA Liaison ad hoc is to become a subcommittee under Health Care Delivery and Financing Systems Committee. The Fee Survey Committee is to become a subcommittee under Health Care Costs Committee. The Health Planning Committee is to be dissolved. The Public Safety Committee is to be dissolved and its function assumed by a subcommittee — the Substance Abuse subcommittee of the Pharmacy/Substance Abuse Committee. The latter is to be redesignated as the Pharmacy/Toxic Agents Committee. The No-fault Insurance subcommittee is to be dissolved and its functions assumed by the Medical Liability Law Committee. The arrangements and Scientific Program Committee are to merge and be named the Annual Meeting Committee.

The HOD then considered the following:

COMMISSION ON ADMINISTRATIVE SERVICES: Action on the reports and recommendations of the committees under this Commission included: *Building Committee:* Its report was amended to read: We have met with our legal counsel and tax accountant to design a $2.5 million dollar limited partnership offering to all HMA members with a minimum purchase of $1,000 per unit. *Committee Recommendation:* Support the limited partnership offering and encourage all HMA members to participate in purchasing a minimum of one unit. The Report, as amended, with its Recommendation was adopted. Grateful appreciation was extended to Allan Kunimoto for his untiring efforts, leadership and guidance which culminated in this Building Committee report.

Reports of the *Computer Committee* and the *Pension Committee* were filed. Commendation was extended to the *Finance Committee* for a balanced budget and no dues increase for 1986.

COMMISSION ON LEADERSHIP SERVICES: Actions on the Reports and Recommendations were: *Hawaii Tumor Registry.* Recommendation: that HMA continue to support the existence of the Hawaii Tumor Registry. The report and Recommendation were adopted. *Community Research Bureau.* Recommendation: That the Community Research Bureau continue to serve the HMA as a 501 (c)(3) organization. *Hawaii Foundation for Medical Care.* Recommendation: This was amended to read that the HFMC Board of Trustees review the bylaws and purposes of the HFMC to see if it still serves a useful function for HMA, and that a report be submitted to the Council in 6 months. The report with the recommendation, as amended, was adopted.

The Reports of the *Bureau of Research and Planning, HMA-EMS Advisory Committee ad hoc,* and the *Hospital Medical Staff Section ad hoc* were filed.

COMMISSION ON INTERNAL AFFAIRS: The House of Delegates action included the *Arrangements Committee* recommendation that the 1986 Annual Meeting be held at the Westin Ilikai Hotel in Honolulu on Friday to Sunday, October 12-14, 1986 was adopted. *Bylaws Committee:* The Bylaws amendments, as prepared by the Bylaws Committee, were adopted with the following exception: a) the correction of three typos, b) Section 5.00 The Council, 5.01 and 5.05, which details the structure of the Council, and requirements for Quorum, and c) section 9.00 Funds and Expenses, 9.022, dues reduction for a physician entering a practice, were referred back to the Bylaws Committee for restudy and recommendations.

COMMISSION ON COMMUNITY AND PROFESSIONAL RELATIONS: The House of Delegates adopted the reports and recommendations of the following committees under this commission: *Report of the Commissioner:* 1) HMA leadership should reestablish formal liaison with the leadership of Military Medicine in Hawaii and the Pacific Basin; 2) reestablish liaison with Hawaii's business and labor leaders; 3) should develop a resource mechanism that can keep Hawaii's doctors informed on current issues pertinent to HMOs, PPOs, IPAs, DRGs; 4) should exert more effort to send down issues and problems for the committees and commissions to consider, rather than to wait for what filters up from committees and commissions. *Continuing Medical Education Committee: Revision of the CME Committee structure is necessary in order to 1) delineate its two separate functions (may need two separate committees) of accreditation and co-sponsorship, 2) specify the term of committee members to assure continuity, 3) establish a training program for committee members to act as surveyors and 4) work on correcting the deficiencies as pointed out by the Accreditation Council for Continuing Medical Education in its two surveys. Medical, Ethical, Moral, and Legal Concerns Committee:* The recommendations were: 1) That the committee continue to monitor living will/durable power of attorney proposals, 2) that the HMA membership be surveyed to determine whether or not there is any consensus on this type of legislation and 3) that the committee continue to monitor legislative proposals relating to organ transplants, hospital ethics committees, informed consent and sterilization of the handicapped. *Committee on Health Manpower:* 1) That there be an updating and possible revision of the 1981 joint policy statement of the HMA and John A. Burns School of Medicine, 2) that a registry of Residents from Hawaii who are obtaining further training on the Mainland be formally established and kept by the HMA and 3) that a continuing effort be made by the HMA through its committees and officers to encourage the selection of residents who are from Hawaii for available positions within the medical community. *MD/RN Relationships:* That this committee be an on-call committee to address any issues requested for discussion by either physicians or nurses. *Hawaii Health Institute:* That this committee be dissolved. The report of the *HMA/HMSA Liaison ad hoc* was filed.

COMMISSION ON LEGISLATION: The reports and recommendations of the committees were adopted: *Legislative Committee:* that 1) The 1985-86 budget of $2,800 which includes Lobbyist-$1,000, Reception-$700, and Research & Information Gathering-$1,100, 2) that a new staff position designed with legislative issues as a primary responsibility, or that funds be budgeted to hire additional lobbyists during the legislative session, or both, be instituted. Medical malpractice No-Fault Subcommittee: That the Medical Malpractice No-Fault Subcommittee be dissolved and its functions assumed by the Medical Liability Law Committee. The report of the *Medical Malpractice Law Committee* was filed.

COMMISSION ON MEMBERSHIP SERVICES: The HOD adopted the reports and recommendations of the following committees: *Publications:* 1) That Dr. J.I. Frederick Reppun be reappointed as Editor of the Hawaii Medical Journal; 2) that HMA commend Dr. Doris Jasinski for her many years of dedicated volunteer service as Managing Editor of the Hawaii Medical Journal; 3) that HMA continue its fine relationship with Crossroads Press, Inc., as publisher of the HMJ; 4) that subscription rates remain the same for 1986: Members $10, and Non-members $15, and 5) that HMA strive to publish a roster or Directory of Hawaii Physicians on an annual basis if financially feasible.

In accordance with the previous adoption by the House of Delegates of the Strategic Planning Task Force Recommendations on Commission/Committee structure the *Commission on Membership Services* was dissolved. The *Public Affairs/Media Response* and *TV-Radio Committees* were combined into one new committee titled *"Awards/Media Committee"* and placed under the *Internal Affairs Commission.* The *Insurance Committee* was placed as a subcommittee under *Membership Benefits Committee* under the *Internal Affairs Commission.* The *Insurance Committee* recommendations were: 1) That HMA continue to work with Frank B. Hall & Co. in exploring ways to increase member participation in the "Protection Plus" program and 2) that the HMA continue to pursue exploration of establishing an Endowment Fund. The *Japanese Speakers' Bureau* will become a subcommittee under a main committee titled *"Speakers Bureau"* which is under the *Commission on Community, Professional Relations, and Peer Review.*

COMMISSION ON PEER REVIEW: The reports of the *Peer*

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Review-MIEC, and *Maternal and Perinatal Mortality Study Committee* were adopted. The report of the *Impaired Physicians' Committee* was adopted, with amendments to clarify the confidentiality of this peer review committee. The recommendations of the Committee were: 1) that the Impaired Physician's Program be extended to all physicians in the State, rather than only to members of the HMA, 2) that all other members of either executive subcommittee or members of the panels be appointed with the collaboration of the Chair; 3) that the Council consider the appointment of a part-time Medical Director of the program as the program becomes viable and expands; 4) that existing records of the component medical societies Physicians' Committee(s) be transferred to the HMA Impaired Physicians' Program.

COMMISSION ON PUBLIC HEALTH: The House adopted the reports of all of the committees under this Commission: the *Cancer Committee* and its subcommittees - *Clinical Trials Program,* and *HMA-Institutional Review Board (IRB); Chronic Illness and Aging; Communicable Disease; Crippled Children; Jail Health; School Health;* and *Substance Abuse/Pharmacy.* The recommendation of the *Public Safety Committee:* that the Public Safety Committee be dissolved, and the functions are assumed by the Pharmacy/Toxic Agents Committee, as recommended by the long-range planning task force. The *Sports Medicine Committee* recommendation that this committee be a standing committee of the HMA so as to continue to fulfill its overall objectives. The Report of the *CANCER COMMISSION* was adopted.

COMMISSION ON SOCIO-ECONOMICS: The reports and recommendations adopted were: *Fee Survey Committee:* 1) that the HMA should continue to monitor the level of medical fees as well as the rate of change in fees in the community; 2) that the HMA obtain the appropriate computer program and necessary expertise to streamline the tabulation of the survey results to facilitate extraction of statistical information from the data.

Medical/Medicaid: 1) exploit the concept of inviting Specialty Society leadership to highest priority participation efforts, such as specific lobbying efforts, major 1986 political activities commitment, etc.; 2) develop a core group of committed, dedicated long-term members who will develop/maintain expertise in Medicare/Medicaid and will actively lobby, since much of the subject matter of this committee is modified legislatively, and implemented by experienced, reasonable people.

Health Planning Committee: That this committee be dissolved unless a clear need can be established, this was also the recommendation of the Commissioner and the Long Range Planning Task Force. The reports of the *Health Care Cost* and *Workers' Compensation* Committees were filed.

RESOLUTIONS ADOPTED

Resolution No. 1 (Re: Certified Athletic Trainers)

Resolved, that the Hawaii Medical Association recognize and support the Hawaii Athletic Trainers Association's efforts to provide professional care to participants in organized athletics

Resolution No. 2 (Alternations in HMA Legislative Committee Voting Procedures

Resolved, that the Chairman of the HMA Auxiliary Legislative Committee serve as a full voting member of the HMA Legislative Committee. (The HOD that acknowledged Auxiliary members have participated actively in the legislative sessions to aid physicians.)

Resolution No. 4 (Re: Medical Malpractice Law)

RESOLVED, that the HMA Medical Malpractice Law Committee continue to function as a forum for exploration of underlying and related concepts, and be it further

RESOLVED, that the membership of the committee include hospital representatives and consumers, and be it further

RESOLVED, that the educational aspects of medical liability concerns be strengthened.

Resolution No. 5 (Relating to Controlled Substances Prescriptions)

RESOLVED, that all prescriptions for controlled substances (Schedules II-V) specify the number of refills to be given, or specify "no refill," and that the quantity prescribed should be written both numerically and in script. (Point of notation: All prescriptions, whether written by medical doctors or other professionals, should follow the same guidelines. The intent of the resolution is to seek voluntary cooperation in areas which will reduce abuse of controlled drugs and thus prevent further laws which will specify exactly how we must write prescriptions.)

Resolution No. 7 (Re: Industry Accountability for Biocide Use)

RESOLVED, that the HMA encourage the Hawaii State Legislature to mandate the registration of usage of biocides, including types of biocides used, quantities used, application schedules and other pertinent information as might be needed to insure the health of the public by making its information available to the public in a timely fashion.

Resolution No. 9 (Re: Attestation Statement)

RESOLVED, that the HMA find the requirement for physicians to sign the Attestation Statement, whether daily, annually or ever, to be odious, onerous and superfluous; and be it further

RESOLVED, that the HMA recommend that physicians not be required to sign any such Attestation Statement; and be it further

RESOLVED, that the HMA officially inform the Health Care Financing Administration of the federal government, the Hawaii Congressional Representatives, the American Medical Association, the Administrators of all hospitals in Hawaii and all Hawaii physicians of these findings and recommendations.

Resolution No. 10 (Re: Support for HAMPAC Activities)

Adopted as amended to read:

RESOLVED, to direct HAMPAC to work with Legal Counsel to devise a means that would not imperil HMA's tax status to enable each member voluntarily to divert 5% of his/her dues to HAMPAC.

Resolution No. 11 (Re: Malpractice Action Plan)

RESOLVED, that the HMA, on behalf of and with the support of its membership, work toward seeking a solution to this problem by the following means:

1. By sponsoring tort reform legislation that will include a cap on awards for non-economic losses, a change in the statute of limitations for minors, a structural settlement system for fees, a collateral source rule to avoid duplicate payments and an amendment to the joint tortfeasor law to ensure that persons only pay their fair share of negligence and nothing more.

2. By educating ourselves and others so that we can better serve as advocates for our patients and our community.

3. By contributing to HAMPAC to enable us to support candidates who pledge to serve the interests of our community.

4. By a professional monitoring and maintaining of the highest standards of medical and surgical practice, the avoidance of "malpractice" and by involving our parents in the understanding of risk and the sharing of responsibility in the outcome of difficult and often hazardous diagnostic and therapeutic procedures.

5. By participating and involving ourselves in legislative action as suggested in membership newsletters and bulletins, and be it further

RESOLVED, that the HMA Task Force on Tort Reform continue to identify and utilize all available resources in order to achieve a solution.

RESOLUTION NO. 12 (Re: Affirmation of Alcoholism As A Disease) This was adopted after it was amended to read:

RESOLVED, that the HMA's House of Delegates request that the Annual Meeting P&A Committee consider for the 1987 annual meeting sessions on "Alcoholism and Other Chemical Dependencies: Hawaii Medicine Responds".

RESOLUTIONS REFERRED

RESOLUTION NO. 3 (Re: Physicians Benevolent Fund) was referred to the Finance Committee and Council:

RESOLVED, that the HMA reinstitute the Physicians Benevolent Fund to be administered by the Executive Committee of the Council with the advice of the HMA Physicians' Committee. Immediate needs are to be met by voluntary contributions. Referral is made to the Finance Committee to determine further funding.

RESOLUTION NO. 6 (Re: Use of Hawaii Tumor Registry Data for HMA Study of Cancer Rates in Hawaii) was referred to the HMA Council and directed to the Cancer Commission for coordination with the various agencies, with a report made back to the Council by April 1986.

RESOLVED, that the HMA undertake and fund a study on cancer incidence and prevalence in the State of Hawaii, utilizing the data which has been collected over the past 20 years by the Hawaii Tumor Registry; and be it further

RESOLVED, that an epidemiologist knowledgeable in these studies be employed to design and carry out the study, and that he be

(Continued on page 192)

Hospice Services on Oahu

A.A. "Bud" Smyser
Contributing Editor
Honolulu Star Bulletin

Why do we have two hospices on Oahu?

That's a question I've heard more than once lately.

Since I happen to sit on the board of one and the advisory board of the other, perhaps I am qualified to venture an answer.

One part of the answer is a question. Why should we have two hospitals? Or the two dozen listed in the Yellow Pages? Why do we have more than one of lots of things?

I don't think the first question—why do we have two hospices?—would even be asked if hospice were not such a new concept.

But it is only in the last 15 years that the United States has caught on to the need for hospices to help terminally ill people have a better quality of life remaining than they could otherwise.

It is only in this period that we came to the recognition—now shared in federal legislation—that it is desirable to separate care aimed at curing from care for people who seem beyond curing.

It takes different mind sets.

If often suggests different surroundings.

And it may best be done with different methods and different personnel.

Cure-oriented doctors and nurses—whose minds go to chemotherapy, surgery and critical care machines—may have a hard time recognizing that these can be only discomforting, intrusive and, yes, useless to a patient beyond cure.

Bustling cure-oriented personnel may have a hard time sparing the time to talk or just hold a hand.

Even the hospital atmosphere and rules like "no children" and "no pets" may be all wrong for a dying patient who would like, above all else, comfort, friends and familiar surroundings.

It is less than 20 years since a British doctor-nurse, Cicely Saunders, recognizing that hospitals were the wrong place for many terminally ill patients, founded St. Christopher's Hospice in a quiet residential district of London.

It is only 15 years since the idea leapfrogged the Atlantic to the United States. But the idea caught on rapidly because it is so essentially right, so essentially humane. It has advanced to the point that Congress has approved hospice care as an alternative to Medicare for patients with less than six months to live who elect it.

Now there are more than a thousand organizations in the United States calling themselves hospices.

Why have more than one here?

Well, for geographic reasons, obviously.

But also because it is a new idea and there are different approaches to it to be tried and tested.

And probably there are different approaches that we will want to keep permanently. Some heavier on home care than others. Some hospital-based. Some in free-standing buildings apart from hospitals. Some denominational religiously. Some non-demoninational. Some appealing to different clienteles—linquistically or for other reasons.

There are even different theories about pain control, an important part of hospice therapy, and different approaches to it.

In the hospice field, we can learn and profit from diversity, even competition, as we do in other fields.

Why have two hospices in Honolulu? Only because we can't yet afford more, would be my answer.

The two we have are St. Francis Hospice headed by Sister Maureen Keleher, the St. Francis Hospital administrator who first brought the hospice concept to Hawaii, and Hospice Hawaii.

St. Francis Hospice is out in front. It has acquired a residential home site in Nuuanu Valley and in February broke ground for the construction that will allow it to provide 12 patient beds. It is in the midst of a $1.5 million fund drive. And its "rival," Hospice Hawaii, is cheering it on to its goal.

The new unit will enrich the care St. Francis Hospice now provides to patients in their homes and at St. Francis Hospital.

Hospice Hawaii has no physical plant, just an office back of the Church of the Crossroads on Coyne Street. But it has volunteer doctors with it and a small paid staff that it hopes to expand to meet federal and private insurance reimbursement standards, including 24-hour-a-day availability of nursing care.

Like St. Francis, it also mobilizes teams of volunteers to assist families caring for dying patients. It has no near-term ambitions at all for a patient care building of its own. It will concentrate on home care and use existing hospitals when hospitalization is necessary.

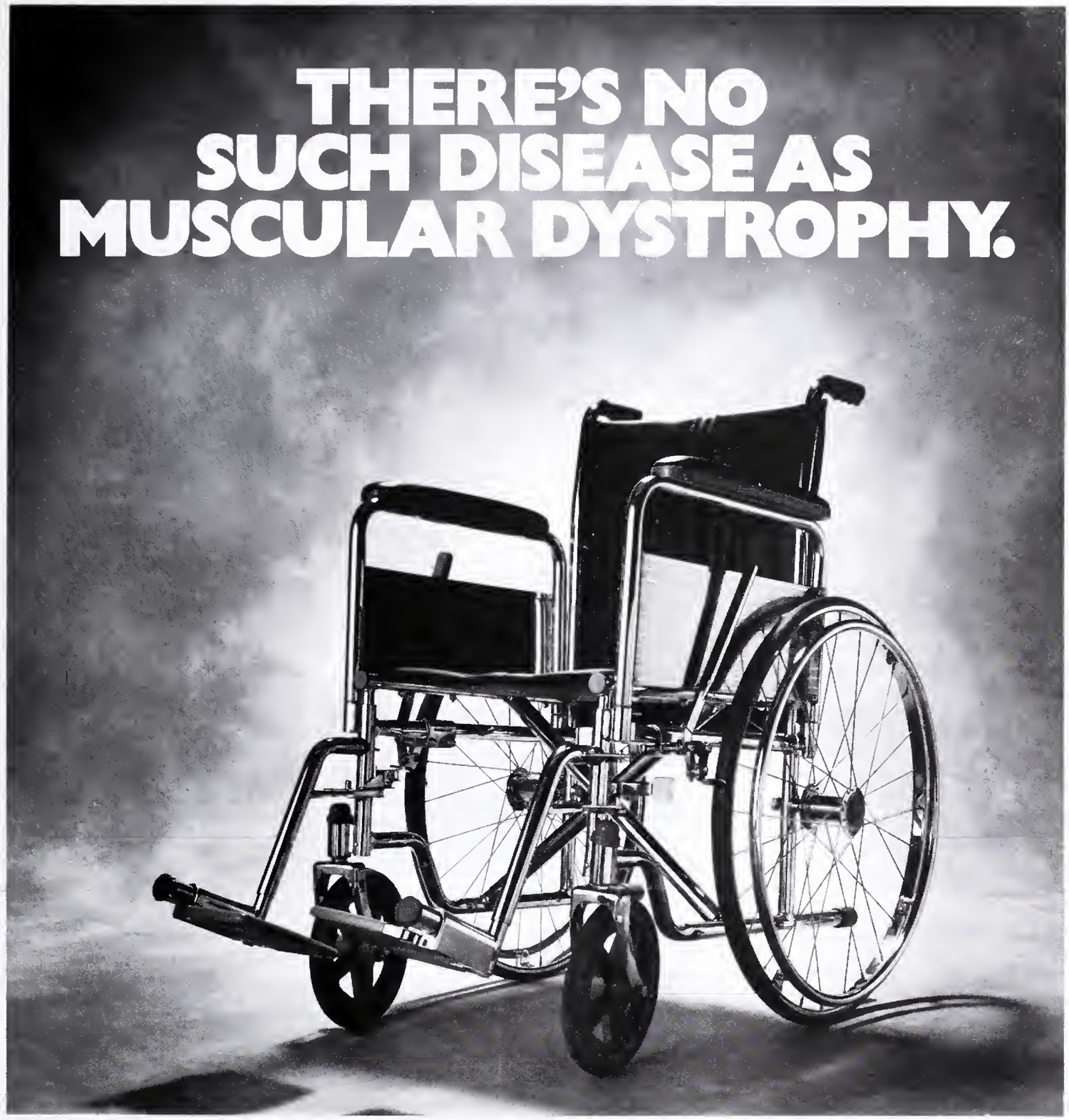
The two programs have the same goals of helping not only the patient but those around them—family and friends—to cope with the drama of a life ending.

But I am sure they will evolve in different ways. And I count that a plus, not a minus.

We are far from oversaturating the field. On Oahu, close to 100 people a month die of cancer, the principal disease

(Continued on page 194)

THERE'S NO SUCH DISEASE AS MUSCULAR DYSTROPHY.



It's true. Because "muscular dystrophy" is the term for a *group* of twelve diseases—and no one disorder goes by that name.

Other facts about muscular dystrophy might surprise you, too. For one thing, the diseases aren't restricted to children. Anyone can be stricken, at any time.

For another thing, the Muscular Dystrophy Association battles not just the twelve muscular dystrophies, but twenty-eight other neuromuscular diseases, too.

At MDA, we're striving to put an end to all the devastating disorders you used to think of as muscular dystrophy.

And one day—we're determined—this chair will be empty for real.

MDA

Muscular Dystrophy Association, Jerry Lewis, National Chairman

Biography

James Foss Fleming MD

This white-haired, short, slightly chubby, unflappable and pleasant man lives on Maui. He has lived there all his life, together with his progenitors before him; some of his progeny also live there. Jim and Betty are inseparably married for going on 53 years.

James Foss Fleming MD of Waikapu, Maui, has been in active general practice for over 50 years. The Hawaii Chapter of the American Academy of Family Physicians, of which he is a member, honored him at its annual meeting on February 22.

Jim was born on Christmas Eve in 1908 in a plantation hospital; he was delivered of his mother by Dr. McConkey, the physician retained by the Maui Agricultural Company and Paia Sugar Mill, in Paia on the slopes of Haleakala.

Jim's father, David Thomas Fleming — known as "DT" — had come to Maui as a boy of 9 together with his parents James W. and Effie Fleming in 1889 from Scotland. The elder Flemings had 5 children ages 12 and under. They had found it very difficult to make a living as farmers in that austere northern Scottish environment. Consequently, when a world-traveling cousin who came to visit them and extolled the joys of living in paradise in the Sandwich Islands, they decided to pull up stakes and emigrate to the Promised Land. This meant not only crossing the Atlantic, but also a long journey across the western half of America by train with five children and all their belongings. James W., Jim's grandfather, was to become the manager of Grove Ranch in Makawao on Maui. The family crossed the Pacific ocean by steamer and on landing at Kahului were escorted immediately up to the ranch, leaving their baggage on the pier to be brought up the next day by ox cart. However, that night a fire broke out on the pier and the Flemings lost everything except the clothes on their backs.

Jim's father grew up on Maui and became a teacher, but at age 30 was chosen by Henry P. Baldwin to be manager of Honolua Ranch, Dairy and Coffee Company West of Lahaina.

Jim's mother, Martha Foss Fleming, had come with her brother John Harrison Foss, an engineering instructor at Stanford who was recruited by Baldwin to design a ditch to bring water from East Maui to the parched central plain. Martha got a job as a bookkeeper at the Honolua Ranch and thus came to meet DT and marry him.

They had six children, all of whom are living. Our Doctor Jim was the firstborn, followed by Bruce who is a cattle rancher on Maui. Then came a sister, Eufence (Vockrodt) who is a grower of carnations in Kula. Then there's David A., owner of the Shoreline Transporation Company in Lahaina, a sister Marion (Holley) in Seattle and the youngest sister Jessie (Rea), a dance teacher in Washington DC.

Jim got his secondary education first at Maui High, then at Lahainaluna, finally at the Montezuma School in Los Gatos in California and from there to Stanford University. He graduated with a BS in 1930 and matriculated at the medical school in Palo Alto but interrupted his studies in order to spend a year at the University of Kansas in Lawrence, Kansas. He returned to Stanford Medical School and finished in 1934, but did not receive his MD degree until the completion of his internship at Queen's Hospital in Honolulu in 1935. Actually, he had only 3 years in medical school but 1-1/2 years in his internship.

Jim had met Betty while at Stanford and they were married in 1932. She was a Hunt from Palo Alto; her grandfather John Hunt was a Superior Court Judge in San Francisco, serving for 43 years on the Bench.

The Flemings had two sets of twin boys in rapid succession; Jack and Jim were born in 1933, Ward and Wray in 1934. Jack is now an aviation mechanic with U.S. Air based in Pittsburgh PA; Jim is a nuclear engineer at Pearl Harbor Sub Base; Ward is a landscape architect in Victoria BC and Wray is a professional pilot with Valley Isle Aviation on Maui. Jim & Betty have 11 grandchildren.

Doctor Jim first hung up his shingle on Kauai as locum tenens for Marvin Brennecke MD, serving at the Eleele McBryde Sugar Plantation hospital and also at the Koloa plantation hospital. His salary was an astronomical $300 a month!

After a few months of that, the young doctor and family came back home to Maui to assist William Dunn MD at the Pioneer Plantation and Sugar Mill hospital in Lahaina. The two plantation docs also took care of the employees and their families of Baldwin Packers Ltd Pineapple Company.

The growing of pineapple commercially on Maui had started at Haiku not long after James Dole introduced it on Oahu at Wahiawa, and later on Lanai. Baldwin Packers used the pulapula (shoots off the air plant's stem) from Haiku to start the plantation at Honolua (Doctor Jim's father DT had been made manager of that enterprise too.)

During this period, Jim also opened a private office in Wailuku and was made plantation physician for Baldwin Packers. He was thus able to hospitalize patients both in Lahaina and Wailuku at the Malulani hospital. However, a year later he moved to Paia and became assistant to "Rocky" Rothrock MD at the Maui Ag hospital, giving up the Lahaina and Wailuku practices.

One year later, on the first of January 1942, Jim went on active duty with the AUS, three weeks after Pearl Harbor was bombed (he had been in the reserves for 6 years). His first duty station was at the Japanese Hospital in Honolulu (now known as the Kuakini Medical Center), which was designated Provisional Army Hospital No. 3. During the 6 months there, Jim was chief of surgery. The next year he served as the Commanding Officer of the U.S. Army Hospital, Lanai Annex, on that isolated island. This was followed by a tour of duty with the 4th Tank Battalion, newly returned from the assault on the Marshall Islands for rest and restructuring at Schofield Barracks on Oahu.

Jim's final home with the AUS was as battalion surgeon with the 108th Infantry, 40th Division, which went overseas first to Guadalcanal, then on to New Britain as the U.S. Armed Forces moved up the island chain towards Japan. A year later, on January 9, 1945, Jim went ashore at Lingayen Bay in the Philippines two hours after the U.S. Navy had laid down a thunderous and prolonged barrage of shells and bombs and one day before 5-star General Douglas "I have returned" MacArthur strode through the shorebreak of surf and up onto the beach. Jim chuckles as he says that the Japanese had evacuated the area 2 days before the barrage.

The 108th came under fierce fire a month later in their slow advance towards Clark Airforce Base that took 3 weeks. The command was then given the task of securing Masbate Island, which they did, and then on to the campaign on Mindanao. Unwounded, Jim finally succumbed to a virulent form of hepatitis that lingered, such as to warrant his evacuation by stages to Letterman General Hospital in San Francisco in July of 1945. He recovered ultimately and was mustered out at war's end shortly after the atom bombs were dropped on Hiroshima and Nagasaki.

Meanwhile, wife Betty and the two sets of twins ages 8 and 9, given the choice early in 1942, elected to return to California on the U.S.S. transport Republic. Reunited with the father, the family returned to Maui to their home in Specklesville on the beach shortly before the April 11 Tsunami. The house was moved off its foundations and wrecked as the Flemings escaped harm. First the long war and then this!

Jim went into solo private practice after World War II, first in Wailuku and much later in Kahului. He closed his office 35 years later in 1980 and since

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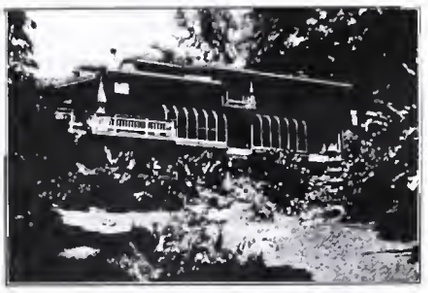

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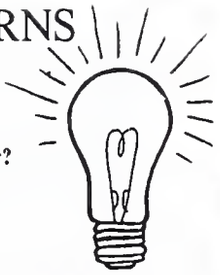

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Kaneohe Bayfront.....11 rms, pool, spa, boatdock (FS)... $549,500

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then has been practicing on a part-time basis out of his home and car, making house calls on his long-time patients that refuse to go elsewhere for their medical care.

Professionally, Jim was made chief-of-staff at Malulani Hospital 1948-1950. He did stints as a medical missionary at the American Baptist Hospital in Assam for 3 months each in 1950 and 1963, as well as 3 months at the United Church of Christ Hospital in Rhodesia. In 1969 he served 3 months in Laos with the Tom Dooley Foundation and another 3 months in 1980 in Singapore for "World Vision." He has been a member of the AMA, HMA and MCMS for 50 years and joined the Hawaii chapter of the American Academy of General Practice, now the AAFP, in June 1952.

Extra-professionally, Jim served Hawaii as a member of the Territorial Board of Education in the late 1950s by appointment of Governor Samuel Wilder King. Jim has been, and always will be, a staunch Republican. He was elected as such to the State Senate from Maui and served 1964-1968. A year or so ago, he and Betty were invited to meet Nancy Reagan at the White House as one of a few select group of outstanding families in the U.S.

Jim earned his license as a private pilot of small aircraft in 1946 and has flown all over the islands since then, including trips to isolated Hana-Maui to take care of the sick and the occasional emergencies during periods when Hana had no resident physician there (it would have taken 2-1/2 hours by car from Wailuku one way!). He can also boast of the distinction of being one of the few, if any, who ever landed a small plane on Kahoolawe's non-existent airstrip — a dusty flat place — except that he flipped the plane upside down and was airshipwrecked and marooned till rescued, unharmed.

Despite suffering a retinal detachment in one eye with loss of vision in it in 1973, Jim has hardly slowed down. Besides seeing his patients in their homes, he attends hospital meetings at Maui Memorial, is busy with volunteer work for the YMCA and the Salvation Army. He and Betty have been pillars of the Wailuku Union Church (UCC) for the past 40 years. They have traveled extensively together and Jim has been taking small tour groups to the Orient sometimes. He and grandson David James Fleming, Santa Clara U. student, once had an adventuresome trip on the Trans-Siberian Railway from Nahodka to Southern USSR and into Afghanistan.

This scion of a Maui family of several generations has lived a very full life of service to his community and to his country as a physician during a span of time that has seen a tremendous change in Hawaii and in the world. When asked what would he advise a young person contemplating entry into the medical field, Jim opined that he would not encourage him or her to become a doctor. "The practice of medicine has lost its charm," Jim says. "Most people nowadays go to see a physician as they would to a shopping center. The doctor of today is not one to assume total responsibility for the welfare of his patient."

J.I. Frederick Reppun, MD

News & Notes

Henry N. Yokoyama, M.D.

Hors de Combat

In August, state deputy attorney general George Yamamoto resigned as head of the Medicaid Fraud Unit. Yamamoto had been director of the unit for 3½ years and his last felony conviction was of an optician who had billed $7.75 for two pairs of nosepads, to which Gov. George R. Ariyoshi commented: "Very candidly, this one bothers me." Another optician was on trial and four others had been indicted for similar fraud charges involving $4 nosepads. The Medicaid Fraud Unit has a staff of seven investigators and two attorneys and an annual budget of $660,000, which is 75% federally funded. "A person's honesty does not depend on how much he steals," Yamamoto said, "but whether he steals at all." (Shades of Islamic law. . . .)

Health Care Plan is described as a "hybrid PPO" — a joint venture between Health Care Management Group Inc. of Hawaii and Transamerica Occidental Life Insurance Co. of Los Angeles. Robert Goldman, Transamerica vice president, says: "Doctors and hospitals would be encouraged to cut costs without cutting the quality of care. With most health plans, doctors and patients are adversaries. Now everyone is on the same side, working to keep costs down."

A nucleus of 15 physicians has put in $100,000 so far and the group has 75 participants. Russell Stodd, HMA president, says, "a system that rewards patients for going to certain doctors implies those doctors are good and the others are bad. I would think that it would be extremely difficult for someone to come in, competing with HMSA and Kaiser, and market this type of program without offering discounted fees, and I fail to see how doctors could benefit from that." (Hear! Hear!*/ed.)*

Thomas Tracy, chief operating officer of the new management group, says he expects opposition to the concept from doctors who resent business being injected into the practice of medicine. "What we're trying to do is change the rules of the game," Goldman says. "Our task now is to have the employee start making the decisions about his health care." (As Frank Rogers, California AMA delegate chief, declared: "Everyone but the physician is trying to practice medicine." Will someone kindly explain to us how one goes about maintaining quality of care through cost-containment? Human lives are at stake. */ed.)*

UH microbiologist Roger Fujioka reports that certain bacteria that can cause human diseases are found in high concentrations in or near polluted waters in Hawaii. Nine species of Vibrio that cause diseases in people and five or six other species that affect fish and marine animals have been identified.

The Vibrio are found at all swimming beaches but they are usually not abundant because of low concentration of nutrients in the ocean water. The highest concentrations are in harbors and streams that are nutrient-rich with sewage, runoff from land, or have poor circulation, e.g. Honolulu Harbor, Pearl Harbor, the Ala Wai Canal and Kahaluu Stream. Francis Pien, Straub infectious disease specialist, has documented and published information on Vibrio infections of swimmers and surfers. . . .

Author, physician and nutritionist John McDougall advocates cutting fats from the diet altogether: no red meat, no poultry, no fish, no dairy products, no fats (both saturated and unsaturated), limited amounts of beans, peas and other legumes, lots of fruits, brown rice, potatoes, whole grains. Our favorite medical writer, Pat Hunter, canvassed local physicians for their views: Honolulu Medical Group president Richard Littenberg says, "He has a lot of provocative ideas about diet and health. John has done his homework. Epidemiological studies and other research support a lot of what he says. Still he does . . . sometimes overstate things in order to drive a point home." Fred Gilbert: "At some time or other, everything that becomes accepted as truth in medicine has been a minority view — often held by physicians whom colleagues regarded as 'off the wall.'"

Miscellany

A young man was playing baseball, when a line drive popped his left eye out. His father, a master craftsman, made a beautiful wooden eye, which was a perfect fit. The young man, shy about his defect, attended a dance where everyone was dancing except a girl with a slightly deformed upper lip. He summoned his courage and asked, "Would you like to

(Continued on page 195)

SUMMARY *(Continued from page 185)*

funded for this project out of HMA funds; and be it further
RESOLVED, that an ad hoc committee be appointed by the HMA president to oversee the design and implementation of the study, together with at least two members of the Hawaii Tumor Registry, two members from the HMA Council, epidemiologist, a public health professional and other interested parties; and be it further
RESOLVED, that the study shall be conducted over a period of one to two years; and be it further
RESOLVED, that the results of this study shall be published in the Hawaii Medical Journal after due critical review.

RESOLUTION NO. 8 (Re: Hawaii Hospital Medical Staff Committee) was referred to the HMA Bylaws Committee for further review to reflect the amendment made to change "Committee" to "Section".
RESOLVED, that the HMA Bylaws be amended to create a Hawaii Hospital Medical Staff Section.

The HOD next heard the report of the NOMINATING COMMITTEE

The Nominating Committee presented the following slate of nominations for the posts below:

President-elect ..... Nadine C. Bruce
Walter W.Y. Chang
Robert C. Clingan
Treasurer ..... Manas K. Ghosh
Allan R. Kunimoto
AMA Delegate ..... William H. Hindle
Calvin C.M. Kam
Alternate AMA Delegate ..... Russell T. Stodd
(President-elect)
Speaker of the House ..... Leonard R. Howard
Milton H. Howell
Vice Speaker of the House ..... Peter M. Kim
Alexander Roth
Councilor from Hawaii ..... Ernest Bade
Maui ..... Dennis Fu
West Hawaii ..... Minolu Cheng
Councilors from Honolulu ..... H.H. Chun Russell Hicks
Kenneal Chun John Kim
Robert Clingan Charles Yamashiro
Philip Hellreich Joseph Young
Robert K. Childs
Resident Physician Delegate
to the House ..... Peter McNally
Medical Student Delegate
to the House ..... May Okihiro
Jeffrey K. Okamoto

Nominated from the Floor of the House for Councilor from Honolulu were: Gladys C. Fryer and Stephen Wallach.

Those elected were:

President-elect ..... Walter W.Y. Chang
Treasurer ..... Allan R. Kunimoto
AMA Delegate ..... Calvin C.M. Kam
Alternate AMA Delegates ..... Russell T. Stodd
Walter W.Y. Chang
Speaker of the House ..... Milton H. Howell
Vice Speaker
of the House ..... Peter Kim
Councilors from Honolulu ..... H.H. Chun
Kenneal Chun
Gladys C. Fryer
Philip Hellreich
Russell Hicks
Charles H. Yamashiro
Resident Physician Delegate
to the House ..... Peter McNally
Medial Student Delegate
to the House ..... May Okihiro

The members of the Nominating Committee for 1986 were then elected as follows:

(Continued on page 202)

Continuing Medical Education

CALENDAR OF ACCREDITED EVENTS—CATEGORY 1

Accredited Programs of CME allow one unit of AMA credit for each hour of instruction excluding all "breaks." Some programs also are accredited for AAFP prescribed credit.

LOCAL ACCREDITED PROGRAMS

ONGOING

For a complete list of ongoing programs, please refer to the March 1986 issue of the HAWAII MEDICAL JOURNAL. Further information is available through the individual institutions or through the HMA's CME Department.

SPECIAL EVENTS

All special events should be confirmed with the CME program sponsors, as cancellations are not necessarily reported to the HAWAII MEDICAL JOURNAL.

May 1-4, 1986	Timely Topics in Pediatrics, AAP-Hawaii Chapter, Joseph Young, MD, 1507 S. King St., Honolulu 96826, (808) 947-3024. Location: InterContinental Maui.
May 25-June 8, 1986	Acupuncture Research Update, co-sponsored by the School of Public Health, Dr. Julia Tsuei, MD, 1380 Lusitana St., Suite 512, Honolulu 96813, (808) 536-2188. Location: Several cities in China.
June 7-14, 1986	Emergency Medicine Conference, Dr. Gayl Anderson, MD, director, Department of Emergency Medicine LAC-USC Medical Center, Los Angeles, Calif. 90033, (213) 226-6667. Location: Waiohai.
July 7-12, 1986	XVIII International Congress of Pediatrics, American Academy of Pediatrics, 141 Northwest Point Rd., P.O. Box 927, Elk Grove Village, Ill. 60007, (312) 228-5005. Location: Honolulu.
July 13-16, 1986	Allergy and Clinical Immunology for Primary Care Physicians, Dr. R. Michael Sly, MD, Children's Hospital National Medical Center, 111 Michigan Ave. N.W., Washington, D.C. Location: Hilton Hawaiian Village.
Aug. 1-6, 1986	Presymposium Workshop, (in association with Aug. 10-15 Symposium), Southern California Neuropsychiatric Institute, Stacey W. Grace, associate program director, 6794 La Jolla Blvd., La Jolla, Calif. 92037. Location: Stouffer's Wailea Beach Resort, Maui.
Sept. 15-18, 1986	The Asia-Pacific Refractive Surgery Seminar, Dr. Gilbert Yamamoto, Ophthalmology Division, Suite 401, 321 North Kuakini St., Honolulu 96817, (808) 531-5993. Location: Kyoto, Japan.
Oct. 18-25, 1986	Operative Arthroscopy, Janet Frank, assistant director, Continuing Education in Health Sciences, UCLA Extension, 10995 Le Conte Ave., Room 614, Los Angeles, Calif. 90024, (213) 825-8423. Location: Maui.

(Continued on page 202)

EDITORIALS *(Continued from page 172)*

agement, psychosocial support and bereavement services. According to the Joint Commission on Accreditation of Hospitals, there are approximately 1,345 U.S. hospices. About 40 percent are owned by hospitals, another 40 percent are independently owned (not owned by any other institution or agency), approximately 22 percent are run by home health agencies and the remainder are operated by long-term care and psychiatric facilities or are government sponsored. A hospice may be a free-standing facility, a unit of a hospital or other institution or simply a program of a hospital, agency or institution."

We asked A.A. "Bud" Smyser, Contributing (and peripatetic!) Editor of the Honolulu Star Bulletin if he would allow us to reprint his recent (2/24/86) Star-Bulletin article *Hospice Services on Oahu,* in this issue of the JOURNAL, and he has graciously given permission to do so.

Bud describes the current status of hospice in Hawaii — something all practicing physicians should be aware of.

From having listened to sister Francine Gries, who has been generally in charge of the St. Francis Hospital hsopice program. We learned a lot about it. Referral of a patient to the program is ultimately done by the attending physician, although the move from acute or extended care can be initiated by the patient's family or a social agency.

The intent of hospice is *not* to accept one who will die in a few days; that misconception, analagous to the private cubicle at the end of a 40-bed ward of the "old days," has led many a non-informed attending to steer his patient away from hospice. The intent, on the contrary, is to present as pleasant and homelike an environment as caring service can provide for a patient who might very well hang on to life for at least 30 to 60 days, or even for 6 months.

It is understandable, therefore, that "hospice" is best served in the patient's own home; there are many practical obstacles to this arrangement, however.

Hospice can be practiced in a hospital setting; St. Francis Hospital initiated the program by the allocation of a single or several beds in the acute care unit, dispersed or together, depending on the hospital census. "Hospice," as a concept, can be applied anywhere.

Neither is it the intent of the hospice program to find a way around the moral and ethical interdictions against euthanasia; it is not a place where "plugs can be pulled" with impunity.

Death with dignity is what hospice has as its goal, in a setting where apprehension, anxiety and depression can be relieved, where pain can be ameliorated in an unstructured and non-rigid regimen, and where the burden of cost of a prolonged demise can be lessened.

Early in 1984, the Medicare authorities allowed for hospice care reimbursement. What does this mean to the patient and his family? In exchange for giving up the usual benefits of Medicare, the patient "signs up" with hospice and is provided total care at no expense to patient or family. The hospital or program is given a set amount of dollars, a capitation fee, for the hospice care of that patient, by Medicare; this payment covers only part of the cost. The program underwrites the balance.

However, this is not an irreversible arrangement; if the patient needs it, he can be transferred out and back into acute care for a period of time, and even repeatedly, during which hospice is temporarily terminated and the patient again becomes eligible for medicare benefits. There is also a provision for "respite" or brief hospitalization from care at home, to give the family some "time off."

Sister Maureen Keleher, Administrator of St. Francis Hospital, has been given accolades from many sources for bringing hospice to Hawaii; the JOURNAL is glad to be added to the list. It commends, also, Bud Smyser and his late wife Betty, for their persistence in helping the concept grow in Hawaii.

J.I. Frederick Reppun, MD

HOSPICE *(Continued from page 186)*

of hospice patients. If they have six months' forewarning, that means we may have nearly 600 people among us more or less all the time who are considered "terminal." Our two existing programs together reach only a small fraction of that group.

There was a third hospice on Oahu—Hoa Kokua Hospice Volunteers associated with the Episcopal Church. It has disbanded but may re-form without church affiliation under the name Alpha and Omega.

There also are Neighbor Island hospices at Wailuku, Maui (Maui Hospice), Lihue, Kauai (Kauai Hospice), and at Hilo on the Big Island (Hawaii Patient Enrichment). Additional ones are being planned at Waimea and Kona on the Big Island. All are coordinated through a State hospice Network based in the offices of the American Cancer Society at 22 North Vineyard Boulevard in Honolulu.

It is a fair generalization to say that we are still groping in the hospice care field, but making progress toward better care; still far from the ideal in pain relief, comfort and counsel, but on the right track. Competition in the field can be a very good thing.

(Continued from page 191)

dance with me?" She replied, "Would I? Would I?" Shocked, he retorted, "Hare lip! Hare lip!" (As told by Eugene Matsuyama.)

A young married lady had triplets. She was thrilled and explained to her girl friend, "You know that the incidence for triplets is once in three billion times!" Her friend was quizzical, "How in the world did you find time to do your housework?" (As told by Larry Wong.)

Man and His Genes

In January 1986, Herbert Takaki celebrated his 85th birthday. We, his close friends, urged him to throw a big birthday party. At his age, one can never tell which will be his last. In fact, we want him to throw one every year.

Now, the obstetrical department of the University of Hawaii Medical School is doing exotic experiments on extrauterine fertilization, artificial insemination, etc., for infertile couples. For these unfortunate couples, when the male has an unusually low sperm count or his ejaculate is immunologically rejected by her cervical mucus, the physicians use donor semen. The donors selected are usually young college or medical students, presumably healthy, in mind and body. However, these youths are all really untested in the trials and tribulations of life; who knows how well these young stallions will do on a muddy track, or under the weight of a heavy jockey in the long run ahead. We contend that the donor semen should come from tested specimens like Herbert.

Here is an MD who still sees twenty-five to forty patients a day; who has been in practice sixty years; who is still going strong and has no intention of quitting; who golfs three times a week and although he now rides a golfcart still takes a big, healthy swing with a heavy club (D5).

Time was when he was a big kendo man, a varsity baseball player and wrestler at the University of Chicago. He can outrun people twenty-five years his junior, the likes of Ike Nadamoto and Glenn Kokame. He has sired six children, who despite him, have all turned out well — two doctors, a dentist, a businessman and two lovely school teacher daughters, all college bred and healthy.

At eighty-five, Herbert shows no trace of senility. He may forget a bet he has lost but never forgets to collect one he has won. He smokes a couple of packs a day, but his immune system has totally rejected all carcinogens. He has a daily portion of rich ice cream without a sign of heart disease.

So there you have it, a prime candidate for the sperm bank. His genes have proven to be outstanding, long lived, resilient, and withstanding the test of time.

Book Reviews

We Are Not Alone: Learning to Live With Chronic Illness, Sefra Kobrin Pitzele, 320 pages. Thompson and Company Inc., Minneapolis, Minn., 1985.

This book is intended for both physicians and their chronically ill patients. It is timely since chronic illnesses are on the increase. It is estimated that about 50 million Americans (about 20% of our population) are suffering from one or more of the chronic illnesses or conditions. Physicians in most specialties will be called on to treat chronically ill patients. Some of the most common diseases referred to in this book are arthritis, in its many different types and forms; stroke with some degree of permanent impairment; many types of heart diseases; Parkinson's disease; emphysema; lupus erythematosis; and asthma.

This book should be of assistance to physicians in conferring with the families of the chronically ill. Some readers may consider that it is directed more to patients than to physicians. It should be a valuable reference for recommended reading by patients and their families.

The author makes the book more readable by including 30 well-done humorous cartoons. She also shows, through pictures, how many household appliances can be modified for use by persons who have deformities caused by chronic diseases. Included also are a glossary, a bibliography, an index, and an extensive resource directory.

Walter Quisenberry, MD

The Best Medicine, K. Butler, L. Royner MD, 770 pp. Harper and Row, San Francisco, 1985. $16.95 (paperback).

This is yet another book for the lay person who may be curious about health and disease and who wishes guidance on how to promote healthy living. The text covers a wide range of topics in a somewhat curious sequence but in a detailed and critical fashion. The index is particularly helpful and is couched in suitable terms.

No doubt subsequent editions will correct the minor flaws found. Thus, tuberculosis is usually managed with eight months of therapy rather than one to two years. Homeopathy should perhaps not be dismissed as "one of the most irrational pseudosciences ever devised"; the recent findings at one of the prestigious INSERM units in France on the influence of homeopathic doses on most cells should promote a pause for thought.

In balance, I appreciated the book, as did that eminent critic of all things medical, my daughter. It fulfills its purpose and is recommended.

Douglas G. Massey, MD
Professor of Medicine
John A. Burns School of Medicine

Over the Editor's Desk

A RECENT STUDY BY THE HOSPITAL COUNCIL OF SOUTHERN CALIFORNIA FOUND THAT most AIDS patients in Los Angeles County are hospitalized two or three times during the course of the disease at an average cost of more than $16,000 per stay. San Francisco General Hospital, the first hospital to open a separate unit for AIDS patients, has reduced the average stay for such patients' first hospitalization to 11.4 days, compared with the norm of 31 days. To accomplish this, the hospital has centralized all services for AIDS patients and begins planning for discharge by making arrangements with community support services as soon as a patient is admitted.

DR. ARMAND HAMMER, ON BEHALF OF THE HAMMER PRIZE FOUNDATION, recently announced that the fourth annual $100,000 Hammer Prize for cancer research will be shared by an American and a Japanese scientist for their research and discoveries relating to the use of Interleukin-2 in the treatment of cancer.

The recipients are Dr. Tadatsugu Taniguchi, professor, Division of Molecular Biology, Institute for Molecular and Cellular Biology, Osaka University, Japan, and Dr. Steven A. Rosenberg, chief of surgery, the National Cancer Institute, Bethesda, Md.

THE KODAK EKTASCAN IMAGE TRANSMISSION SYSTEM (KEITS) IS A PHOTOGRAPHIC-ELECTRONICS HYBRID that brings time-saving convenience to radiologists by digitizing, storing, enhancing and transmitting referral images to remote locations over telephone lines or coaxial cable.

THE CONTACT LENS MARKET, WHICH TOTALED $450 MILLION IN 1984, IS EXPECTED TO REACH $540 MILLION BY THE END OF 1985. Lens market growth has been averaging 15 to 20% over the past several years. Some companies and products — such as extended-wear lenses — have experienced growth rates of up to 33%.

Since 1983, soft lens products have accounted for abot 80% of the market, with soft extended-wear lenses representing the fastest-growing sector. Replacement lenses are significant to total market growth, given the life expectancy of currently popular materials. Soft lenses have an average life of 15 to 18 months, and extended-wear lenses about 12 months.

The solutions market is growing even more rapidly than the lens market, at an

average annual growth rate of about 30%. The estimated 1985 solutions market is $350 million at the manufacturers' level.

For more information, contact Theta Corp., Theta Building, Middlefield, Ct. 06455, (203) 349-1054.

EXACTLY HOW FIT ARE YOU? For all those people who take their fitness seriously, there is now a complete, simple, accurate and inexpensive fitness measuring kit. The Sportmed Fitness Appraisal Kit allows you to measure six key indicators of fitness without need for supervision, in your home or out-of-doors. Through clear, precise instructions on audio tape and with the aid of various measuring devices, the kit measures:

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The kit is available for $79.95 plus $5.95 postage and handling from Sportmed Technology Inc., 2180 Belgrave Ave., Montreal, Quebec, Canada H4A. Or call L. Klein at (514) 489-8251 for further information. (Both amounts are expressed in U.S. dollars.)

THE EVOLUTION OF UPJOHN HEALTHCARE SERVICES, A SUBSIDIARY OF THE UPJOHN CO. AND THE LARGEST HOME HEALTH CARE PROVIDER IN THE U.S., TYPIFIES THE RAPID CHANGES THAT HAVE SWEPT THE INDUSTRY. UHCS began as Homemakers Inc., a small Joliet, Ill., firm providing housekeeping and some health-related services. The Upjohn Co. purchased Homemakers in 1969.

Since 1969, UHCS has grown 100-fold in revenues and has increased its scope to include a wide range of home care services.

UHCS employees include registered nurses, therapists, social workers, home health aides, nursing assistants, homemakers, and companions. Services now include everything from meal preparation and nutritional counseling to chemotherapy administration and caring for ventilator-dependent children. UHCS offers its services on an hourly or around-the-clock basis.

THE UNION OF AMERICAN PHYSICIANS AND DENTISTS HAS ENJOYED ENORMOUS GROWTH. Within the past year, the UAPD added six new state chapters in Massachusetts, New York, Connecticut, Pennsylvania, Florida, and Oregon. In March 1986, in response to this growth, the UAPD opened an office in Washington, D.C.

Sanford A. Marcus, MD, national president of the UAPD, said, "The UAPD position paper establishes a firm base for the legality of physicians' unions. We have been operating legally and unchallenged as a doctors' union since 1972. We expect to represent a steadily growing proporation of the natin's doctors in the years to come and to continue to do an effective job of representing our members on the tough socio-economic issues that they face."

ROCHE REVISES SPELLING OF ITS ANTICONVULSIVE. Roche Laboratories, the pharmaceuticals division of Hoffmann-La Roche Inc., has revised the spelling of its trade name for the anticonvulsant medication Clonopin CIV to Klonopin™ (clonazepam/Roche) CIV. The spelling was changed to avoid possible confusion with the generic name clonidine, an antihypertensive product.

CHAMPUS CLARIFIES RULES ON MARRIAGE AND FAMILY COUNSELORS, EFFECTIVE FEB. 1, 1986. CHAMPUS does *not* disapprove of marriage and family counseling, since it may be helpful to military families. However, CHAMPUS rules have always required that only psychotherapy that is medically or psychologically necessary to treat a diagnosed mental condition be covered. CHAMPUS rules continue to require that a physician must initially refer patients for all psychotherapy involving marriage and family counselors, and must supervise the treatment. This means that the physician must actually *see* the patient and make an initial diagnosis describing a CHAMPUS-covered psychiatric disorder before referral. The counselor also must coordinate with the physician on a regular basis.

FROM GRODY/TELLEM COMMUNICATIONS, INC. — CONSIDER THESE FACTS:

- A small toy can cut off a child's air supply within a few moments, causing death or irreversible brain damage.
- In 1983, 118,000 children under the age of 15 were treated in emergency rooms for toy-related injuries.
- Children less than three years of age account for 19% of reported choking incidents involving small toys and toy parts.

While both children and adults may be attracted by a brightly colored toy or a popular plaything, choosing safe toys is not child's play.

THE NATIONAL ASSOCIATION FOR AMBULATORY CARE, A TRADE ASSOCIATION FOR THE AMBULATORY CARE CENTER INDUSTRY, was formerly known as the National Association of Freestanding Emergency Centers. It was founded in 1981 to represent what then were called freestanding emergency centers. At that time they emphasized the provision of medical care for episodic injuries and ailments as well as for minor emergencies. As the industry evolved and matured, a larger market was recognized — primary care — and in mid-1983, the industry began a major shift in its services and messages. Industry spokesmen think market emphasis will continue, and many contend that it eventually will serve as a gatekeeper to the total health-care delivery system. The accompanying chart, from NAFAC liteature, illustrates the industry's growth and the distribution of the physician population.

Projected Number of Freestanding Ambulatory Care Centers in Operation — 1983-1990

Year	Number FECs	Percent Increase from Previous Year
1983	1,100	83.3%
1984	1,900	71.7%
1985	2,500	31.6%
1986	2,900	16.0%
1987	3,300	13.8%
1988	3,700	12.1%
1989	4,100	10.8%
1990	4,500	8.9%

In the United States, there are 390,000 physicians in patient care practice:
88,300, or 23%, in group practices.
52,000, or 13%, in HMOs.
48,500, or 12%, in PPOs.
33,500, or 9%, in ambulatory surgical centers.
43,200, or 11%, in freestanding emergency centers.

(Reprinted from American Medical News/ed.)


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To protect your patients, as well as their quality of life, add Isoptin instead of a beta blocker.

First, Isoptin not only reduces myocardial oxygen demand by reducing peripheral resistance, but also increases coronary perfusion by preventing coronary vasospasm and dilating coronary arteries — both normal and stenotic. These are antianginal actions that no beta blocker can provide.

Second, Isoptin spares patients the beta-blocker side effects that may compromise the quality of life.

With Isoptin, fatigue, bradycardia and mental depression are rare. Unlike beta blockers, Isoptin can safely be given to patients with asthma, COPD, diabetes or peripheral vascular disease. Serious adverse reactions with Isoptin are rare at recommended doses; the single most common side effect is constipation (6.3%).

Cardiovascular contraindications to the use of Isoptin are similar to those of beta blockers: severe left ventricular dysfunction, hypotension (systolic pressure <90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no artificial pacemaker is present) and second- or third-degree AV block.

So, the next time a nitrate is not enough, add Isoptin... for more comprehensive antianginal protection without side effects which may cramp an active life style.

ISOPTIN. Added antianginal protection without beta-blocker side effects.

Please see brief summary on following page

SUMMARY *(Continued from page 192)*

Honolulu — Herbert Chinn, William Hindle, Calvin Kam, Philip McNamee, and George Mills; Hawaii — Arch Wigle; Kauai — Peter Kim; Maui — Sakae Uehara; and West Hawaii — Robert Laird.

The House of Delegates officially commended President William H. Hindle, and the officers for 1984-85 for their outstanding achievements; appreciation was expressed for their dedicated hours of service. Commendation was also given to Speaker Herbert Uemura for the efficient manner in which he conducted the business of the House, and to Vice-speaker Milton Howell for the excellent assistance given to the speaker.

Robert Laird, President of West Hawaii Medical Society, thanked all those who attended this Annual Meeting in Kona and hoped that everyone found it an enjoyable location for the meeting; he looked forward to the scheduling of the meeting there again.

The House of Delegates, after all newly elected officers except the President were installed, was adjourned at 4:15 p.m. Monday, October 14, 1985.

(President Russell Stodd was installed at the banquet on Saturday, October 12.)

1986 Annual Meeting Awards

Medical Reporting:

Commercial Newspapers and Magazines: Pat Pitzer (Honolulu Magazine - "What Price Life?")

Institutional Newspapers and Magazines: Janet Smith (Kaiser Permanente Medical Center - "Children Having Children")

Television: Leslie Wilcox (KGMB-TV Channel 9 - "Diagnoses: AIDS")

A.H. Robins Co. 1985 Physician of the Year Award for Community Service: Steven Moser, MD.

Sportmen's Awards:

Golf: President's Trophy (low net) and the Robert Miyamoto Perpetual Trophy (low net): Wayne Nadamoto. John Felix Perpetual Trophy (low gross): Michael Okihiro. George Mills Perpetual Trophy for Pharmaceutical Representatives, (low net): Roy Tanabe.

Tennis: Round Robin Doubles: Andrew Don

Table Tennis: John Spangler

10K Run: J.C. Lewin

Racquetball: Greg Chun

Continuing Medical Education

(Continued from page 193)

Oct. 20-24, 1986	New Approaches to the Evaluation of Neoplastic Lymphoproliferative Disorder, co-sponsored with the University of Southern California, Dr. John Parker, professor and co-chairman, Department of Pathology, University of Southern California School of Medicine, 2025 Zonal Ave., Los Angeles, Calif. 90033, (213) 224-7121. Location: Maui.
Nov. 2-8, 1986	Districts VII-IX Continuing Medical Education, American College of Obstetrics and Gynecology, 600 Maryland Ave., SW, Suite 300E, Washington D.C., 20024, Attn: Barbara Kallas, (202) 638-5577. Location: Hyatt Regency Maui.
Dec. 27-Jan. 3, 1987	Advances in Internal Medicine, University of Washington School of Medicine, Continuing Medical Education, Health Sciences Center E-303, Seattle, Wash. 98195, (206) 543-1050. Location: Sheraton Kauai.

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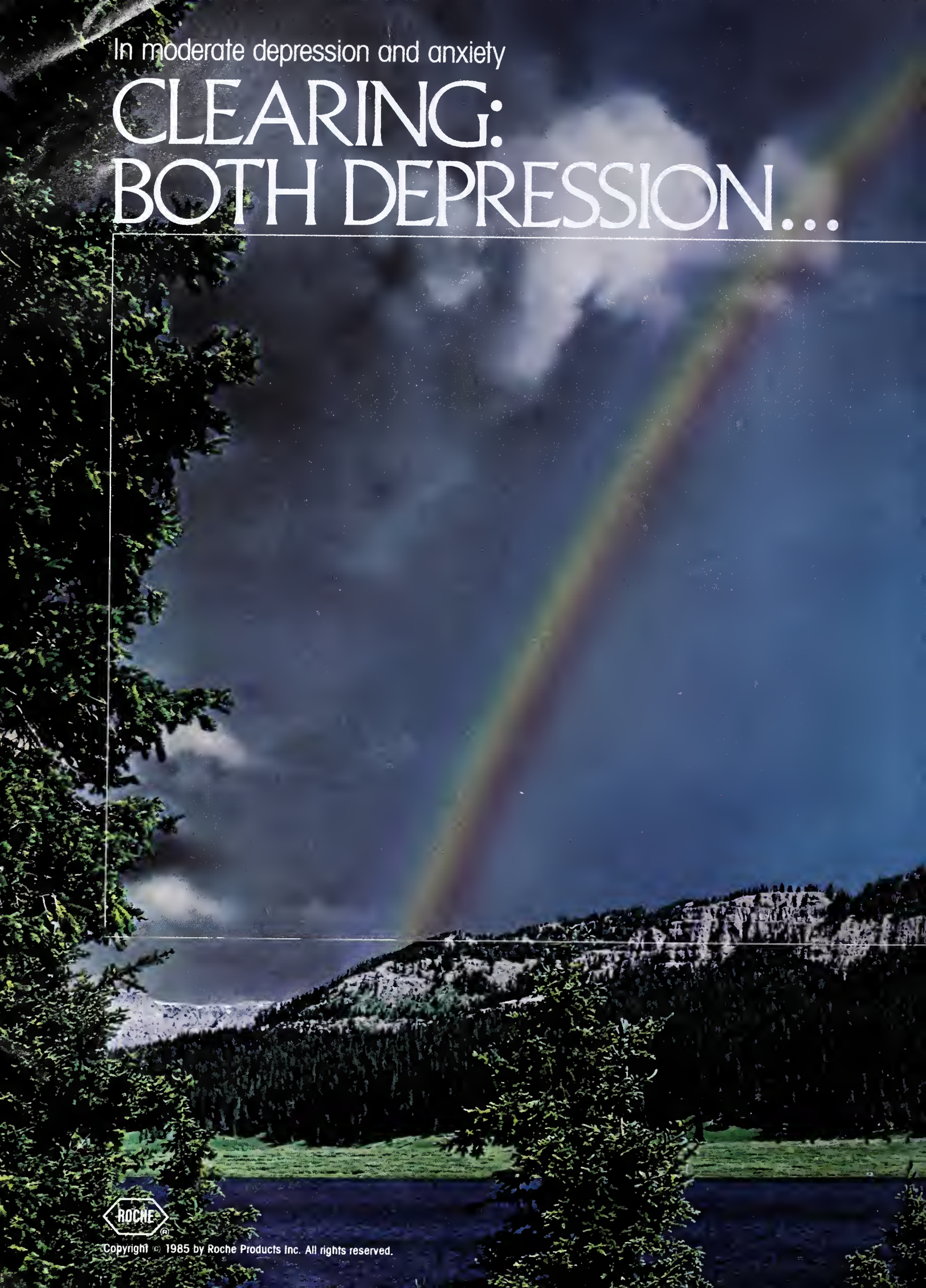

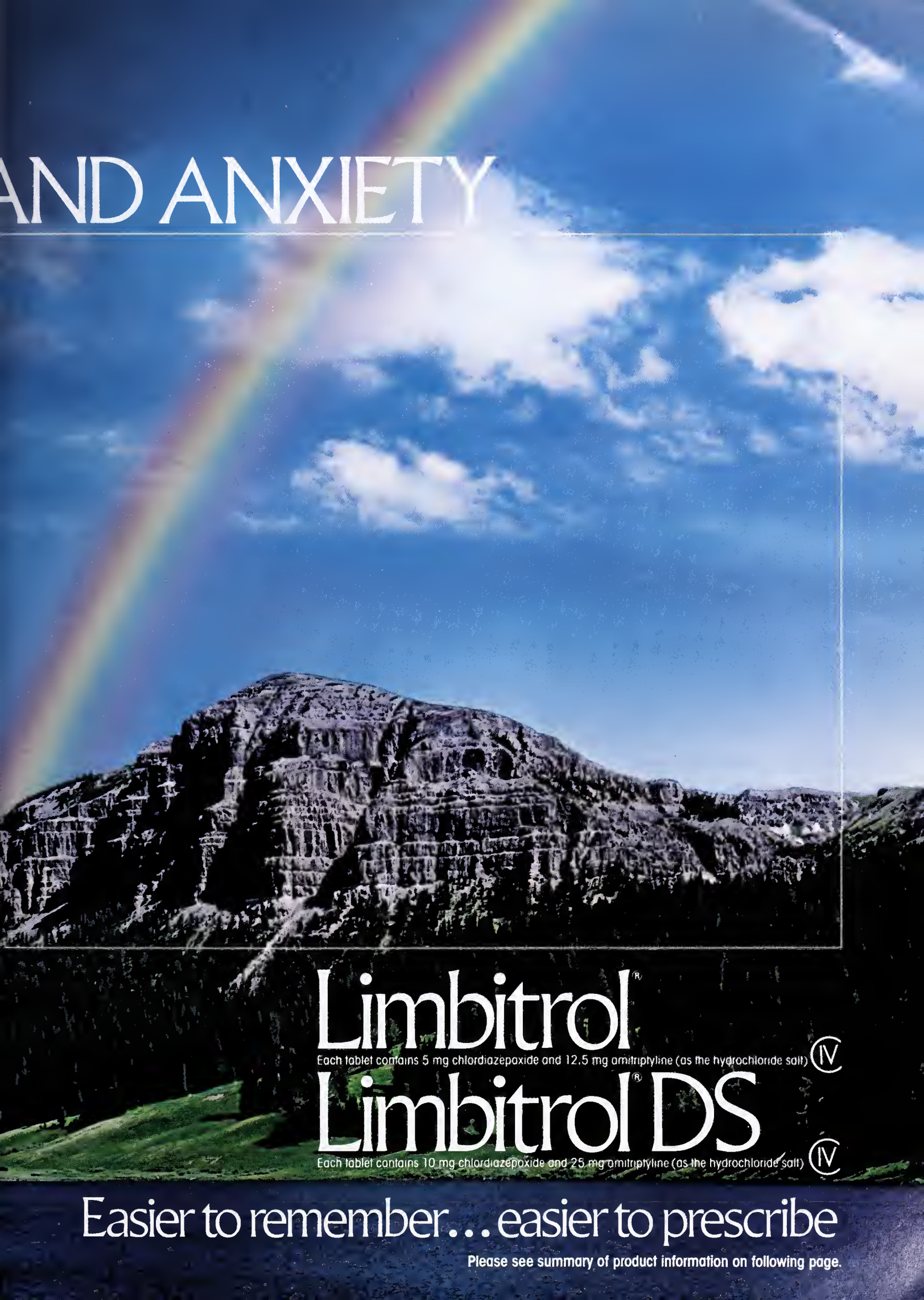
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Editorials

Ho'oponopono

In this issue of the JOURNAL is a very local and a very interesting article by Samuel J. Paltin, DO, MD, MA, a Hilo psychiatrist.

Strangely enough, his paper was read first at the annual meeting of the American Psychiatric Association in Los Angeles in 1984, rather than in Hawaii.

In a personal communication, Dr. Paltin mentions that "a Kahuna is teaching Hawaiian healing arts to a group in San Diego," and that "other centers for Huna studies are at work in Missouri and Pennsylvania."

In relation to this, we need to report that Stanislaus Grof, MD, research psychiatrist at the Esalen Institute in Big Sur, California, and formerly chief of psychiatry at Johns Hopkins in Baltimore, recently was in Honolulu and spoke to audiences at the University's Manoa campus on *Beyond the Brain* (he has just had a book published with that title). Dr. Grof is married to the former Christina Valier Healy, which makes him a kamaaina of sorts.

Grof is of the "new" transpersonal school of parapsychology, which, in contrast to the "old" Freudian concept that postulated the "tabula rasa" or clean slate with which a human newborn enters the world, upon which person is imprinted on its subconscious mind a biography of post-natal experiences, with an impact on the later, adult behavioral personality, the transpersonal philosophy is one that hypothesizes a neonatal slate already written upon. The in-utero foetal experiences and the "trauma" of birth make their mark on the foetal brain, Grof says. In fact, he has and is continuing to obtain scientific evidence by means of careful research, the springboard for the latter having been the psychedelic drug experience, which indicates that there may be input from as far back as the moment of conception, and before that from one's ancestors and even phylogenetically back through time to previous incarnations.

What was particularly stimulating to contemplate in listening to Grof expand upon the hypothesis, was the way in which he brought in spiritual effects, "a sense of luminosity, of something sacred, of a gateway to the ethereal cosmos of our universe," which immediately called to mind the Hawaiian practice of Huna.

Without referring to it as Hawaiian/Polynesian, Dr. Grof spoke of the "cleansing" process of such recall — a communion with one's gods or god or one's way, way back origins — in order to restore sanity in the face of serious and emotional psychic "problems".

We listened with keen attention, having just edited Paltin's *Huna of Hawaii,* published herewith and appropriately in the JOURNAL.

The practice of Huna not only continues, but is being resurrected as an effective mode of resolving the many inter-human problems that lead to adverse emotional outbursts within our community.

J.I. Frederick Reppun, MD
Editor

Syndrome of Immediate Reactivities

"Contact urticaria syndrome" was first so named by Maibach in 1975[1] to designate urticaria produced immediately by external contact with an organic chemical, diethyltoluamide. Subsequently, it was shown that many substances could elicit hives in this novel manner; and then it began to be realized that urticaria was far from being the only manifestation of this remarkable sort of allergy. And skin contact was by no means the only way in which a reaction could be produced.

Because the reaction can range from headache or nasal allergy through asthma to gastrointestinal problems, David J. Elpern, MD, who has discussed this curious (and common, though little recognized) syndrome in three articles in the HAWAII MEDICAL JOURNAL,[2, 4] wishes to drop the word urticaria and substitute for it "reactivities." He hopes for a better word with which to replace it. I echo his wish, and suggest that "reactivities," if it were to be run up the flagpole, would not be saluted by very many people. "Urticaria," on the other hand — though it is regrettably restrictive, is easily understood and would be used; and "syndrome"implies a constellation of associated symptoms.

Dr. Elpern has done us all a very great service in not only calling our attention to this under-diagnosed entity, but in broadening and deepening our knowledge of it through his own observations. These articles are in the very forefront of our knowledge of allergic reactions.

Harry L. Arnold, MD
Founding and Editor Emeritus
Hawaii Medical Journal

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"The Insert"

In this issue of the JOURNAL is a letter from Maui psychiatrist John Betwee, MD. We think his point is well-taken.

Our readers need to be carefully informed that the May 1986 issue of the JOURNAL had an advertising insert of 16 unnumbered pages between pages 132 and 149 that was included by the publisher without our foreknowledge.

The reader will notice a disclaimer at the very bottom of the first page of this insert: The rose-pink and blue "Second Opinion" (in bright red), with an even brighter yellow pathological (but unreadable) EKG strip on a field azure across the upper half of the page. It reads: A Crossroads Press advertising supplement to Pacific Business News, Hawaii Medical Journal,

Hawaii Dental Journal, Hawaii Bar News and The Balance Sheet.

In the center of this inserted advertising material is an article: "Hawaii's Health Care Revolution" by Harding and Forest; it lies between the ads for St. Francis Hospital and for Abbey Medical. The article, therefore, must be construed as an advertisment, although what it advertises is a bit abscure.

From an editorial point of view, we have some doubts as to whether we would have accepted it as an article in the JOURNAL, considering the many debatable cause/effect statements therein.

In its defense, however, we must admit that the entire 16-page insert is very colorful, eye-catching, neatly put together, a complete statement and certainly a Madison Avenue marketing jewel. What one can say about the article within is that it is at least provocative, as exemplified by Betwee's almost instant response.

We have had an excellent rapport between HMA's Publications Committee, the publisher Crossroads Press and the JOURNAL's editorial staff heretofore; we intend for this to continue.

We're not sure — we would welcome further comment from the readership — whether it was quite appropriate to insert the "insert" into the HAWAII MEDICAL JOURNAL.

J.I. Frederick Reppun, MD
Editor

Re: Article in HMJ: Hawaii's Health Care Revolution

Editor:

Having read the recent article, "Hawaii's Health Care Revolution" by Harding and Forest, I would have been amused had not the potential reality of their descriptions been so grim. Although not explicitly stated, the tone of the article was unequivocally supportive of the changes in "health care" described. What a great thing it is that the provision of "health care" (by "providers," of course) is now being "market driven."

In many ways, nothing could be further from the truth. Contrary to being in the driver's seat, the average medical plan subscriber has much less choice or influence in determining what he gets in medical care than he did under the old, supposedly "physician-dominated and -controlled" system. Increasingly, individuals are at the mercy of their employers who choose what medical insurance coverage will be provided under Hawaii's 1974 Prepaid Health Care Act.

Although undoubtedly altruistically motivated, this government intrusion into the lives of everyone is highly questionable. Why should government have singled out medical insurance to be required as a condition of employment? Why not automobile or life insurance or prepaid legal coverage or grocery bills? Why not let individual workers or at least their collective bargaining agents decide what sorts of benefits are desired?

As it now stands, medical insurance is simply another overhead expense the employer and his customers must bear and choices, contrary to Harding and Forest, are made on the basis of the bottom line rather than what is needed.

Physicians, too, have a central part in the process in their eagerness to accept "participating contracts" which do little more than guarantee their incomes while excluding patients ("consumers") from quality control and decision-making processes.

It is a function of the business market mentality that "sports medicine, fitness testing, diet classes, stress management and care-group rap sessions" are included in "medical care" where they do not properly belong by the wildest stretch of anyone's imagination. As a dues-paying health insurance subscriber, I am apalled at the prospect of paying for such services to be sued by others simply because they are "free."

Current contentions aside, there is a great difference between business and the professions. Business and the marketplace is simply and fundamentally an inappropriate model for medicine.

John Betwee, MD
Maui Psychiatry Group

Book Review

Bordow RA, MD, Moser KM, MD, Manual of Clinical Problems in Pulmonary Medicine, Little, Brown Co. Boston, Toronto, 2nd Edition, 1985. 492 pages, $18.95.

One could not consider this a stylish book — from the garrish figure on the cover to the funeral-like heavy horizontal bands throughout the text. Furthermore, there is a certain unattractiveness about its sparseness — the tiny print, the tiny margins, the print and diagrams that show through from the reverse of the page, etc.

This all seems to be done with a certain perverseness in that the same style persists even next to a page and a half without print.

Should one persist, however, one can recognize the good value. The content is wide-ranging and well-focused. The pulmonary function section is particularly well-balanced. Thus, the influence of race on normal pulmonary function values is noted, a factor of considerable importance to us in Hawaii.

The place of body plethysmography is well described and the fallacies of the single-breath diffusing capacity commented upon. In asthma, the specificity of of bronchial provocation testing, especially with antigens, is emphasized. An inexpensive, desirable book.

Douglas G. Massey, MD
Professor of Medicine

Huna of Hawaii: A System of Psychological Theory and Practice

By Samuel J. Paltin, MD*

A system of indigenous Hawaiian healing called "huna" will be described. The word huna means "that which is hidden" in Hawaiian; it was practiced in secret in its early history.[2]

Practitioners of the art are called "kahunas," and legends abound about their powers, such as psychic abilities, instant healing, firewalking, slaying through sorcery, and manipulating the future.[18]

The kahunas and their oral tradition were suppressed by the Christian missionaries who came to Hawaii and the lore, therefore, largely lost.[1]

As indigenous healers, Hawaiian *kahunas* practiced a sophisticated form of psychological treatment. Like psychoanalysis, their art consisted of a combination of metapsychology and specific techniques for treatment. The theory on which their efforts were based has similarities with Freud's structural components, the *ego, id* and *superego,* although *huna* adds a spiritual aspect and superordinate consciousness to the conceptualization.

The *huna* theory indicates that each person consists of three entities, or souls.[3] The three souls are bound to each other throughout life and even through several reincarnations. The *uhane* is an ego-like rational entity that transacts, decides and plans. The *unihipili* is a younger spirit, is the site of emotions, and has access to the memory bank. It has the exclusive line of communication with a level of superconsciousness, the *aumakua,* which is above our own conscious level.

The aumakua is a spiritual entity that combines a male-female aspect to maintain a benign, available but non-intrusive interest in the other two souls. It is nonjudgmental and has superhuman powers: It can tap an even higher divine force for additional help, and it fulfills requests received from the *uhane,* which are transmitted through the *unihipili.* The channels for transmitting communication among the selves are the *aka* cords. The *uhane* and *unihipili* are separate entities, but rely on each other to realize their functions. They share the physical body although their centers of consciousness are in different locations. The *uhane* has its center in the head area, the *unihipili* in the area of the solar plexus, and the *aumakua* above the head. The three inhabit three invisible but interpenetrating ethereal bodies, made up of *aka* substance. To carry out their tasks, the three levels of force are employed as life energy: *Unihipili* uses *mana,* the basic life vitality used to keep the physical body functioning and in action; *uhane* uses a higher voltage, *mana-mana, aumakua* uses *mana loa,* the highest-voltage energy, which can perform instant healing and other supernormal feats.[4]

The Personality

The ancient Hawaiian concept of what we call "the personality" was a trilogy, and as we described above, consisted of: The *uhane*, the *unihipili* and the *aumakua.*

The *uhane* is somewhat analagous to the ego, as it focuses on physical reality, analyzes and integrates reality, and forms attitudes and opinions about reality. It receives information from the senses and from the *unihipili* and directs action according to the beliefs it has formed. These beliefs are always available to conscious examination, but may be regarded by the person as facts or laws that he is helpless to change. Physical disorder may result when beliefs stimulate emotions and convert them into symptoms. In treating illness, the *kahuna* may attempt to direct the patient to change his views of apparent facts (cognitive restructuring), or employ another faculty of the

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uhane, directed imagination, to achieve purposeful imaging of a more desirable condition.[5] By this means, the *kahuna* guides the activities of the unconscious self: The *unihipili,* to provide a template for the *aumakua* to exert its powerful prayer-granting force. These beneficial effects are induced by the *uhane* by sending *mana* (vital force) and an image of the request to the *unihipili* for transmission to the *aumakua,* which then uses the *mana* to power the response. The essential element for success is contact with the *aumakua.* However, a blockage similar to neurosis may occur in the communication channel because of fear and guilt. When a blockage occurs, a *kahuna* may attempt to clear it from the path by a cleansing ritual, meditation, prayer or other means, or the *kahuna* may help transmit the wish directly by interjection of his own *mana.*

The *unihipili* functions as the seat of memory and stores all the thought forms created by the *uhane,*[6] and is subject to programming by the *uhane.* It maintains the integrity of the body and generates, stores and transmits energy. The *unihipili* carries out its beliefs as habit patterns, but the *uhane,* by conscious examination of the beliefs and habits, may persuade the *unihipili* to change them. When guilt and fear become fixed habits, the *unihipili* may refuse to contact the aumakua The individual then is faced with the problem of being at the mercy of the irrational unconscious self. The *kahuna* becomes aware of this blockage when the problem resisted clearing because he knows that the *aumakua* is capaole of solving any problem. The *kahuna* treats this fragmentation of personality by uncovering the complex, then removing it. The main source for a complex is the failure to seek forgiveness for having hurt another person.

The *aumakua* is like a wise parent, or guardian angel, whose purpose is to assist the other two selves in their growth and development through experience. It belongs to a family of superior forms similar to itself that are in constant contact with each other. The aumakua is connected to the two other entities by a cord of *aka* substance over which communications, *mana* and prayers are transmitted.

The Aims of Huna

The aim of the *huna* process is to bring the three selves into a harmonious, balanced and unblocked relationship, fulfilling the physical survival needs of the *unihipili,* the personal and social ego needs of the *uhane,* and the transcendent needs for wisdom, truth, beauty, justice and humor of the *aumakua.*[7] The obstacles to communication are complexes of ideas or fixations of guilt, feelings of inferiority and unworthiness, doubt, fear, and other negative accumulations in the memory bank of the *unihipili,* which clings to its habits and old thought forms. A new action or set of thoughts from the *uhane,* therefore, may evoke old feelings of sin or guilt in the *unihipili,* which will resist performing its function of transmitting requests to the aumakua. The task of the *kahuna* is to "clear the path" of the prayer along its way, so that the *aumakua* can be enlisted to accomplish the goals. This is accomplished by rites for cleansing and rebalancing the persons and environment. The *huna* and Hawaiian culture aims are embodied in five concepts:[8]

1. *Aloha:*
   Love between persons; sharing; hospitality.
2. *Lokahi:*
   Harmony; unity between all components is sought; the wish to maintain harmony in all relationships.
3. *Kuleana:*
   Responsibility; specific duties that each member has within the family.
4. *Kokua:*
   Charity, generosity; one's duty to help others who are in need.
5. *Ohana:*
   The extended family; the relationships within the *ohana* are the most important thing for a person.

There are certain assumptions inherent in *huna:*[9]

1. Some form, or entity of consciousness, is within or outside of man, which the *kahuna* attempts to contact through ceremony or prayer. This unidentified consciousness can use some kind of force in such a way as to affect physical matter, change events, and perform psychic acts and feats, such as instant healing and firewalking.

2. No particular religious beliefs are involved. The only sin recognized in *huna* is that of hurting another human being unjustly. Man's mind is unable to grasp the true nature of the Divine. Between it and man are several layers of conscious beings. One effects communication with the highest levels by way of the next-higher level, i.e., the *aumakuas,* which can combine into a community of spirits or entities in the form of a universal mind.

3. On a day-to-day basis, one may think freely, exert free will and choose life experiences. Long-term events, such as time and place of birth, and ethnicity, for example, are predetermined.

Case Study

A 54-year-old woman of German extraction, raised in Hawaii, was seen in consultation by a psychiatrist. She had been hospitalized eight times in four months for severe attacks of asthma, low back pain, rocking behavior, and auditory and visual hallucinations of her deceased husband, who, so it seemed, wanted her to join him in death. She was depressed and lonely. In the past, she had had four laminectomies after an industrial accident. She had a background of unremitting unhappy experiences, starting with a hard and unhappy childhood, a mother who "gave me away," multiple foster homes, and permanent separation from her siblings and parents. Her mother had been a hysterical woman who threatened frequently to drown herself. Many deaths had occurred among the people she had known. She had had an unhappy first marriage full of abuse, and was divorced after 10 years. Her second marriage lasted 25 years but she had three children who died as infants. "There has been so much tragedy in my life," she said. Four years before this admission, her husband and a son were lost a sea in a storm while she spoke with them on the radio. She then went to live in a care home in order to escape from a remaining son who threatened her physically and demanded money. Thyroid, chest X-ray, other studies, and a CT head scan were negative.

Antidepressant (Trazadone, increased to 300 mg a day) was prescribed, with equivocal results. Because she appeared to be amenable to suggestion and was of local origin, a meeting was arranged with a *kahuna.* After she took a complete anamnesis of significant persons, places, and events, the female *kahuna* employed a brief cleansing ritual (see appendix), and by her manner, assured the patient that her symptoms would improve. Although the patient was twice hospitalized for low back pain (because of the old industrial accident) during the ensuing five months, she was vastly improved otherwise, showing very little depression and no asthmatic problems. She has continued to maintain contact with her family physician for mild complaints of arthritis, and to take Mellaril 25 mg daily for tension.

Treatment Methods of the *Kahuna*

Techniques for maintaining an integrated personality and for the treatment of aberrations of the *huna* were developed by the *kahunas.* They include mesmeric healing, hypnotic healing, mind-to-mind healing, the laying-on of hands, healing from a distance, and self-healing.[2] *Ho'oponopono* is a ritualized form of family therapy for resolving interpersonal and group differences. For healing, use is made of a variation in which *mana,* the energy force for the system, is mobilized and sent to the *aumakua* in order to cleanse one's past history, cut inhibiting ties with the past, and promote fulfillment of wishes and prayers.[10]

In a typical ritual for communicating with the *aumakua,* first, "the way is cleared" by prayers to a supreme being, in order to convey a sense of being linked with a greater spirit.[11] Next, a supply of

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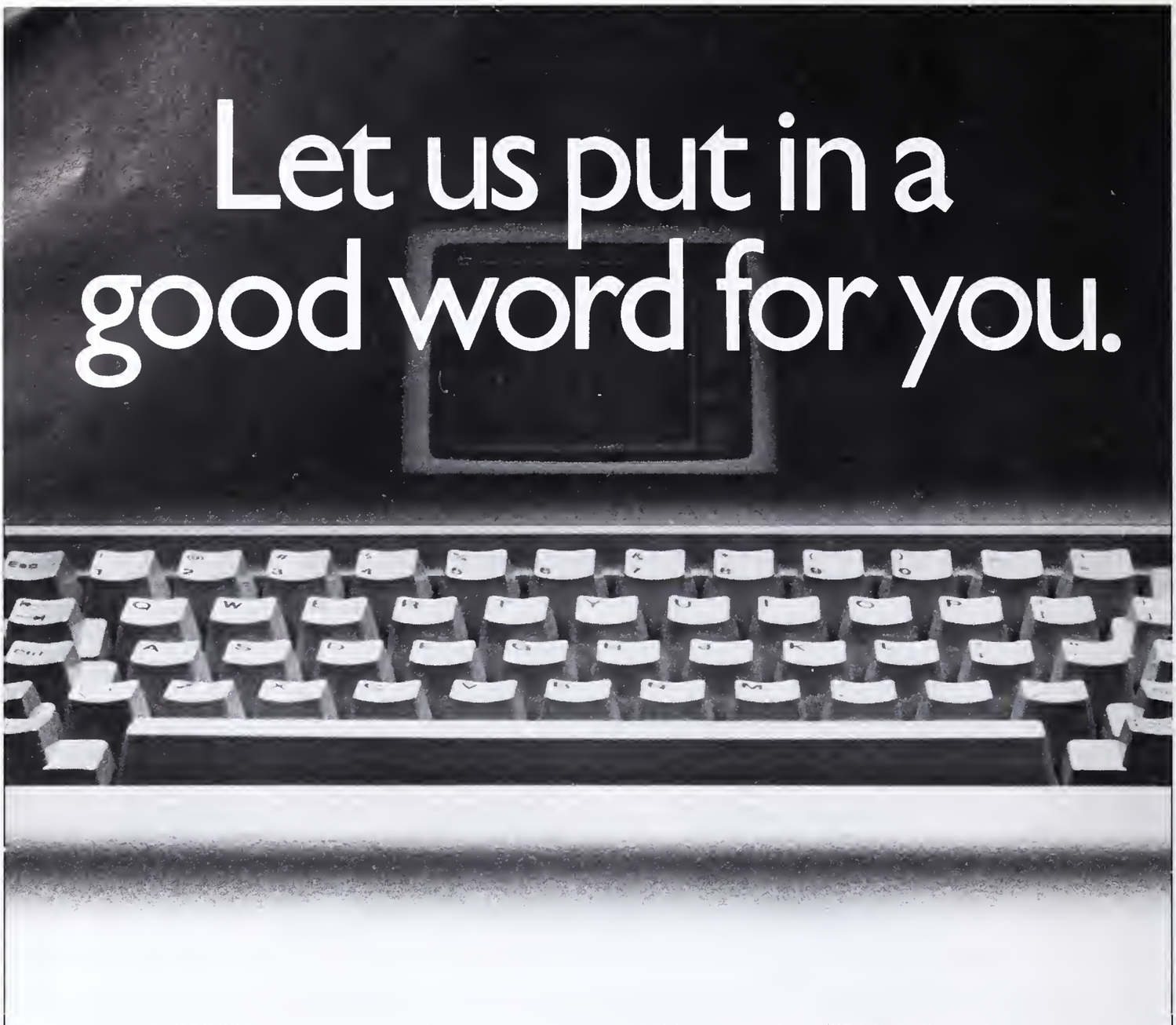

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mana is sent to the *aumakua*, which will convert the energy to higher voltage *(mana-loa)*. Usually, this is accomplished by directed deep breathing, thereby providing an extra supply of vital force toward the *aumakua,* something akin to an offering in religious practice. Projecting a mental picture of *mana* rising in the body can also promote and transmit it. The *unihipili* is a primary process agency, sometimes illogical, stubborn or given to childish resistances, especially influenced by the "talon law," in which hurting others requires retribution, and it remembers everything from the past. As a result, the *uhane* must persuade the *unihipili* that amends have been made for hurts done to others in the past. Since the *unihipili* is literal, the most effective means for expiating hurts are physical acts or stimuli, accompanied by suggestion. For example, the *kahuna's* patient might be forced to make redress and observe a fast, or do deeds of service for others, or perform charitable deeds. Anything will do if it is physically impressive and contains an image, such as cleansing, washing or freeing. Repentance may be directed in a prayer that requests forgiveness, cleansing, purification, release, and cutting out all unwanted energies and vibrations, which are then transmuted to "pure light."[10]

Kahunas engage in rituals of problem-solving and cleansing of land, of objects, persons and entities; they offer "release" prayers to "bring about the release from causes that create stress, unique and specific to each individual. Three concepts are fundamental to the workings of this cleansing and release process: Repentance, forgiveness and transmutation. The purpose of the process is to identify the internal cause of the stress and to release it."[10] The related toxins and negative vibrations are transmuted to "pure light" and the subject person is set free from the previous connections. Another round of breathing sends additional *mana,* vital energy, to the *aumakua* to facilitate the release and transmutation. Finally, the *unihipili* is thanked for its participation and help.

The *huna* "prayer" process involves several steps.[3] (1) The *unihipili* must be trained to learn to follow the *aka cord* channel, directing it to the aumakua; (2) the *unihipili* is trained to generate an extra supply of *mana* on command, then to send it along the paths of contact when needed; (4) if contact with the *aumakua* is not made, the path must be cleared by removing guilt complexes in *unihipili.* If a prayer is made for healing, the subject person must be cleansed of all guilt complexes as a preliminary act; otherwise, his *unihipili* will prevent the healing; (5) the prayer is carefully made, considering the possible unexpected consequences should the prayer be answered; the will of the *uhane* impresses the prayer upon the *unihipili* and builds strong thought form clusters; (6) the prayer is held in the consciousness and the *unihipili* is ordered to reach out and engage the *aumakua.* The prayer is forwarded to the *aumakua* with an extra supply of *mana* in order to have it materialize into immediate or future happenings.

Etiology of Psychopathology

Psychosis or mental retardation may occur, according to Hawaiian lore, when one or more selves are replaced by wandering spirits, or irreparable blockage occurs in the *aka* channels, with fragmentation of the personality, or when a specific curse has been placed by a *kahuna.*[5]

"Possession" by a subhuman entity, or a displaced *uhane* or *unihipili,* is thought to explain cases of mutiple personality; amnesia is assumed to result from displacement of the *unihipili,* which has the function of storing memories. If a change in personality occurs without loss of memory, the *uhane* may have been displaced. Psychosis may result when the *uhane* is forced to leave the body because of disease or injury, while the *unihipili* remains, caring for the body and remembering, but with a loss of higher reasoning ability. The *unihipili* may get separated from the *uhane* at death, or when psychosis is caused by disease or injury and the *uhane* is forced out of the body. Unsupervised by an *uhane,* these displaced *unihipili* make an effort to get back into a body as "possessing" spirits, or cause mischief and trickery, similar to what is done by a poltergeist.[3]

The *kahunas* think illness is caused by tension from conflicts of thought and emotional energy,[12] such as fear or anger, and therefore consider all symptoms as a form of conversion reaction. Pragmatically, they use medicines, rituals, diets, amulets and other objects or activities in the healing process.[13, 14, 16] Physical manipulations,[15] as well as manipulation of areas in which the hands of the healer do not tough the patient, are employed.[5] A conscious attempt is made to change beliefs, attitudes and assumptions by stimulating the imagination in order to reveal patterns of beliefs, to develop new beliefs and habits, and to promote changes by means of release and forgiveness. Undesirable thoughts that produce tension are replaced by positive ones, when possible, and the patient's memory is explored in order to reinterpret or modify past events. Techniques of muscular relaxation are taught. Directed imagination is a major tool to channel thoughts, emotions and actions into new directions, and is accomlished by teaching how to direct the *mana.* All healing results, according to *kahuna* belief, from a natural communion with a higher self, the *aumakua,* and from allowing vital energy to flow freely along the *aka* channels. The practice of *aloha* (love) and the sharing of joy makes the union effective, permitting full participation by all parts of the individual.

Discussion

Practitioners of *huna* regard it as a practical system of psychology, rather than as a religion or an occult system. Pre-Western practitioners of *huna* displayed awareness of concepts of unconscious determinism, psychosomatic linkage and its role in disease and symptoms, an awareness of psychopathology, such as in multiple personalities, hysteria, conversion, psychoses and neuroses, and a theory to account for these problems. *Kahunas* have developed techniques of treatment that use the authority of a healer who teaches the patient new attitudes based on a comprehensive theory of the cause of the problem, and prescribes treatments that include many modalities currently used in modern psychiatry. Besides physical and somatic treatments — such as diet, fasting, medicines and massage — ritual is employed to expiate guilt, burdensome memories are reinterpreted, and control of his life is restored to the patient. The purpose of *huna* is to restore the patient to health by clearing channels through which healing energy can travel freely, thereby promoting integration of the parts of the individual. Adherence to a religious suasion is not required, even though terms like "God," "Divine Creator," and "prayer" are used; the rituals do not constitute a creed. Unlike in most modern scientific psychiatric practice, however, the Hawaiians accepted the idea of a superordinate intelligence with supernormal powers. This idea has appeared in psychology in the ideas of Jung's Collective Unconscious and in Assagioli's Superconscious. In the literature of Hawaiian culture, legends and anecdotal descriptions of the healing abilities of the *kahunas* abound,[17, 18, 19] despite the assumption that much of the knowledge was suppressed and lost after Westernization. In fact, *huna* is enjoying a resurgence of attention in the popular press, and it could provide stimulating ideas for psychiatrists of the present.

APPENDIX

The *Ho'oponopono* process of Mrs. Morrnah Nalamaku Simeona, Kahuna Lapa'au.

1. Seven rounds of breathing — *ha,* which means "breath" in Hawaiian. Each round consists of four steps: inhale (to energize) for a seven-count; hold the breath for seven; exhale (to release impurities and blocks) for seven; and hold the breath for seven.
2. A prayer of one's choosing.
3. Repentance: "Divine Creator: Father, Mother, Son as One, if I, my family and ancestors have offended you in thoughts, words, deeds and actions from the beginning of our creation to the

present, please forgive us; cleanse, purify, release, sever and cut all the unwanted energies and vibrations we have created and/or accumulated and accepted from the beginning of our creation to the present. Please transmute all the negative, unwanted energies to Pure Light. We are set free! And it is done!"

4. Ho'oponopono: "Divine Creator: Father, Mother, Son as One, I, my family and ancestors wish to do a ho'oponopono, eliminating all my fears, errors, resentments, guilts, anger, violence, attachments with people, places, past lives, home ties that contribute to the cause of my problems. Cleanse, purify, sever, cut and release all the negative and unwanted memories, blocks and energies we have created, accumulated and accepted from the beginning of our creation to the present. Transmute all these unwanted energies to Pure Light. We release them to Pure Light as they release us. We are set free! And it is done!"
5. Release: "Divine Creator: Father, Mother, Son as One, I, my family and ancestors mentally detach myself from all involved in this case. I cut all *aka* cords. We are set free! And it is done!"
6. Cleansing: "I mentally bathe myself from the top of the head to the toes with the following colors: indigo seven times; emerald green seven times; ice blue seven times; white seven times."
7. Transmuting: "Divine Creator: Father, Mother, Son as One, I, my family and ancestors mentally transmute all released toxins and negative vibrations to Pure Light and surround myself with a gold circle. We are set free! And it is done!"
8. Seven rounds of breathing *(ha)*.
9. Thanking the unihipili: "Thank you for participating and for helping, and may the 'I' continually bless you."

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AIDS — The Learning Together Conference

*By Jennifer Frank, MD**

On Friday, April 4, 1986, the Hawaii Medical Association sponsored a very well-attended conference on AIDS at the Ala Moana Americana Hotel in Honolulu.

The conference featured many eminent authorities, including **Harold Jaffee** MD, Chief of AIDS Activity in the Epidemiology Section at the Center for Disease Control in Atlanta; he outlined the current spread of the disease in the United States and the prospects for control of the epidemic.

Deborah Greenspan, BDS, showed slides of the new oral lesions that doctors and dentists are now seeing as evidence of this disease; she discussed the precautions that dentists should be taking, which are identical to those recommended for the prevention of the spread of Hepatitis-B in dental offices.

Arthur Liang, MD, of the Hawaii State Health Department related local statistics, which are currently at 69 cases, with 39 dead. These include Caucasians, Asians, Hispanics and Blacks. He reported that a positive sign of behavioral change in the male homosexual risk group is apparent through the decrease in reported cases of syphillis and rectal gonorrhea in men in Hawaii, reflecting similar trends on the Mainland.

Mervyn Silverman, MD, past-director of the Department of Health in San Francisco, shared with the audience the history of the public health approach in dealing with AIDS in that city, which has been exemplary in both economic and humanitarian terms.

Jay Levy, MD, the oncologist from the University of California/San Francisco School of Medicine, who isolated the AIDS-associated retrovirus, discussed the neurotropism of the virus, it being found in vaginal secretions, and in particular the relatively small number of virus particles that are found in the blood of infected persons, as compared with the much larger number of such particles in persons infected with Hepatitis-B. "This explains why HB is more readily spread as a result of a needlestick than is HTLV-III (25-50 thousand in the latter instance, as compared with 10 to 100 million particles of HB per ml of blood)," said Dr. Levy.

"As of 1986, some 50% of the gay male population of San Franciso has become infected with the AIDS virus," according to **Donald Abrams, MD,** also a featured speaker at the conference. He is the Assistant Director of AIDS Activities at San Francisco General Hospital. He reported that studies have shown certain characteristics of ARC — Aids-Related Conditions — in patients who will go on to develop AIDS. These are oral candidiasis, hairy leukoplakia of the oral cavity, an elevated sed rate, a lowering of the white blood count or of platelets and anemia.

Connie Wofsy, MD, an infectious disease specialist who is co-director of the AIDS Clinic & In-Patient Unit at SF General Hospital, described the "induced sputum" technique for diagnosing Pneumocystis pneumonia, wherein nebulized saline provokes a deep cough. This technique is successful in 60 to 75% of cases, thus reducing the need for bronchoscopy in order to establish the diagnosis.

Allison Moed, BSN, the head nurse of the AIDS ward at SFGH, told of the volunteers who have come forward from the San Francisco community, deeply moved by the plight of the AIDS sufferers, and how these samaritans have helped enrich the lives of these patients and of the staff personnel of the unit.

The final speaker was **Michael Gottlieb, MD,** the immunologist from UCLA who cared for the first 5 cases of AIDS diagnosed in the U.S. He discussed the anti-viral drugs presently being studied, which may be useful in combination with immune modulators. "Clearly, there is as yet no cure and no available vaccine," he said.

Major sponsors of this milestone conference, in addition to the HMA, were the Life Foundation and the State Department of Health. Many other community-minded organizations and individuals pitched in to help put it across. More than 600 persons, largely health care providers but also including interested persons from the general public, attended.

* Jennifer Frank, MD, is a specialist in Family Practice in Honolulu.

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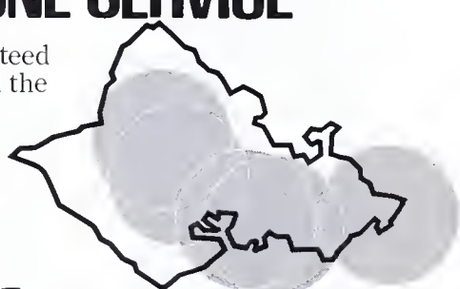

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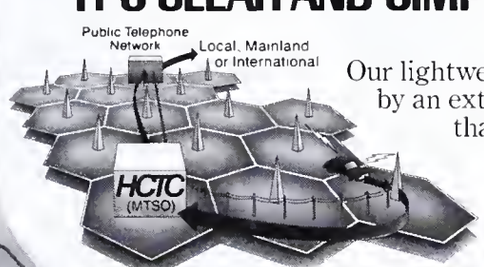

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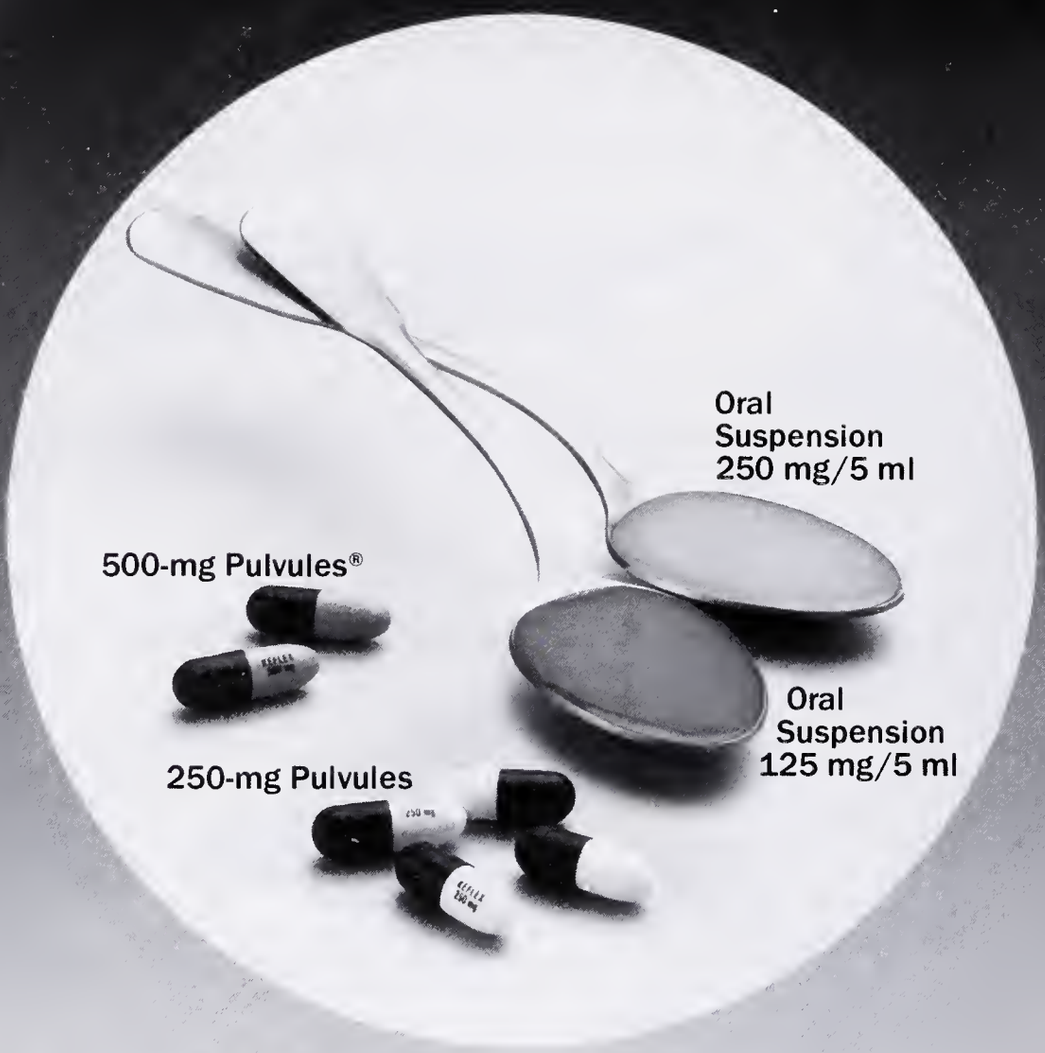

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Therapeutic Use of Colchicine In Thrombocytopenia

Robert T.S. Jim, MD
Professor of Medicine
University of Hawaii School of Medicine

Cochichine has been used to treat gout, familial Mediterranean fever, amyloidosis[1] and idiopathic thrombocytopenia purpura (ITP)[2, 3]. In this study, the use of colchicine in ITP, drug immune and L.E. thrombocytopenia is reported.

TABLE 1. — Use of Colchicine in Thrombocytopenia

Case No.	Age	Sex	Diagnosis	Previous Treatment	Date started	Colchicine Rx Duration of treatment	Response
1	45	F	ITP Thyroidectomy for Graves disease 1960	Splenectomy 1970 Prednisone	7/15/81	12 days	Partial
2	32	M	ITP	Prednisone Cyclophosphamide Vincristine	1st course 12/5/81 2nd course 2/8/82	44 days 35 days	Complete remission
3	11	F	ITP	Prednisone Cyclophosphamide	10/5/82	20 days	None
4	41	M	ITP	Prednisone	12/4/84	14 days	Partial
5*	14	M	ITP	Splenectomy Prednisone	4/3/80	8 months	Partial
6	63	M	Myelodysplastic syndrome Immune drug thrombocytopenia		4 courses given between 11/83-5/84	5 days 7 days 7 days 16 days	Partial ,, ,, ,,
7	68	F	L.E. thrombocytopenia	Prednisone	5/24/85	14 days	Partial

*Clinical information kindly supplied by Fortunato Elizaga, MD

Presented at the St. Francis Hospital Hematology Conference, June 20, 1985, Honolulu, Hawaii

Materials and Methods

Cochicine was given to patients in doses of 0.5 or 0.6 mg 2 to 3 times daily orally; the dose was reduced or discontinued if diarrhea or significant leukopenia developed. Brief clinical data is recorded in Table 1.

Results

Of 5 patients with ITP given colchicine, complete remission occurred in 1 who was also on prednisone and cyclophosphamide (case 1). Splenectomy was avoided in this patient. Three patients with ITP already on steroids and/or cyclophosphamide showed improvement in thrombocytopenia when colchicine was added for periods of one week (case 4) to 5 months (case 5). In 1 patient with ITP there was no response (case 3) and splenectomy was eventually done. In 1 patient with a myelodysplastic syndrome and superimposed drug immune thrombocytopenia (case 6), cochicine given on 4 occasions resulted in rapid significant elevations in platelet counts on each occasion. In 1 patient with L.E. thrombocytopenia, rapid improvement occured in thrombocytopenia lasting at least 3 weeks (case 7).

Discussion

Harrington et al[2] treated 19 patients who had ITP with colchicine alone or in combination with steroids and immunosuppressive agents and obtained complete remission in one when it was used alone and 3 complete remissions when colchicine was used in combination with immunosuppressive agents. Lobuglio et al treated 14 patients with ITP with colchicine and obtained complete remissions in 1 patient and partial remission in one[3]. In these 2 reports no responses were seen in 14 of the 33 patients given colchicine. In our study, of 5 patients with ITP given colchicine complete remission occurred in 1 who was also being given steroids and cyclophosphamide. Partial remissions occurred in 3 patients with ITP and no response in 1. The combined total experience for the use of colchine in ITP in the medical literature and in our study is summarized in Table 2. It appears the use of colchicine alone in ITP or in combination with steroids and immunosuppressive agents can induce complete remission in only a small number (about 18 per cent), partial remission in slightly less than half and no response in the rest. Colchicine appears more effective when combined with steroids and immunosuppressive agents than when used alone. The use of colchicine in the management of ITP is not primarily to replace steroids, immunosuppressive agents or splenectomy, but as another agent to help raise the platelet count when higher levels are desired. Colchicine may be useful when splenectomy is refused or contraindicated or has failed, or for immune thrombocytopenia due to drugs or other diseases.

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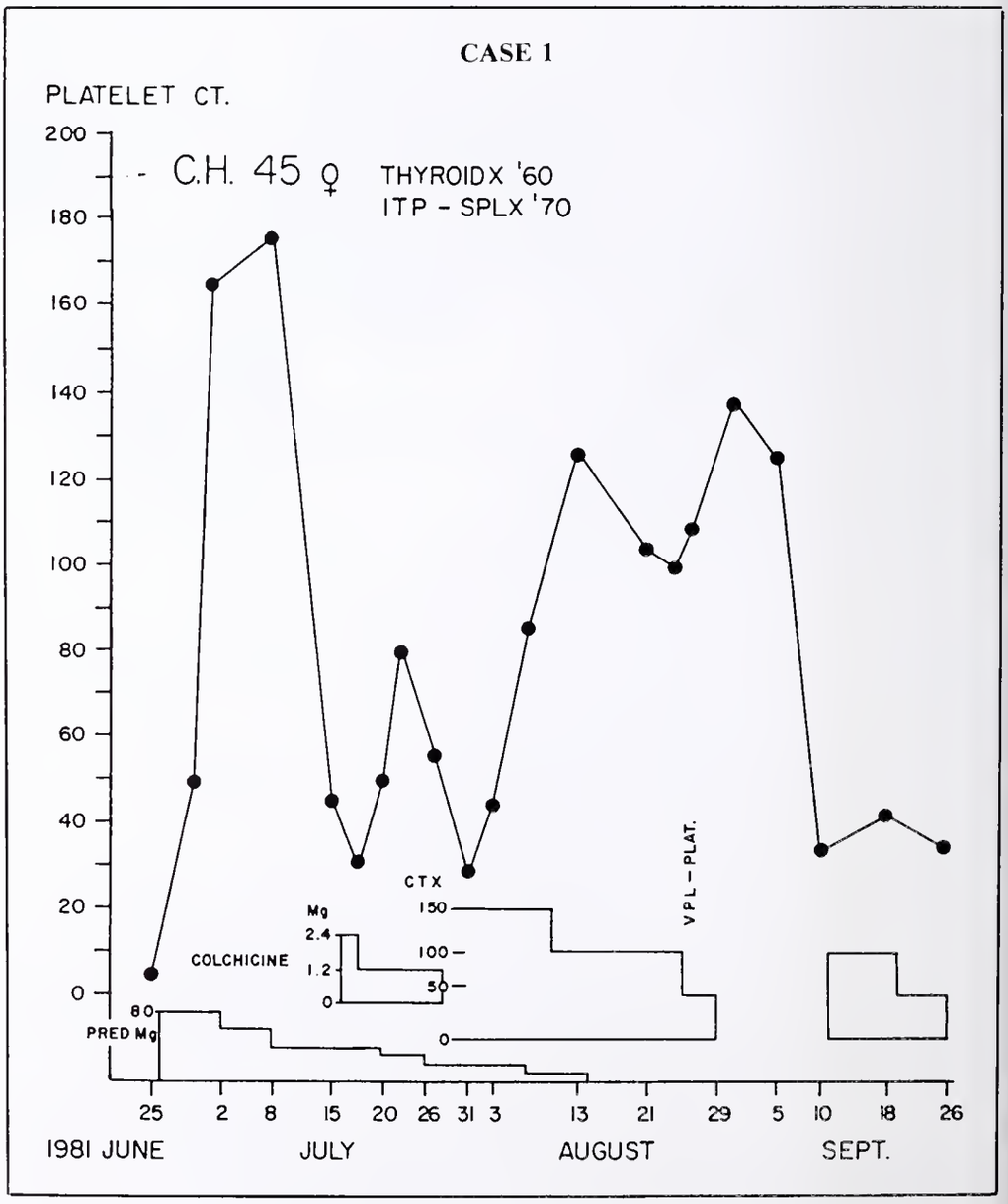
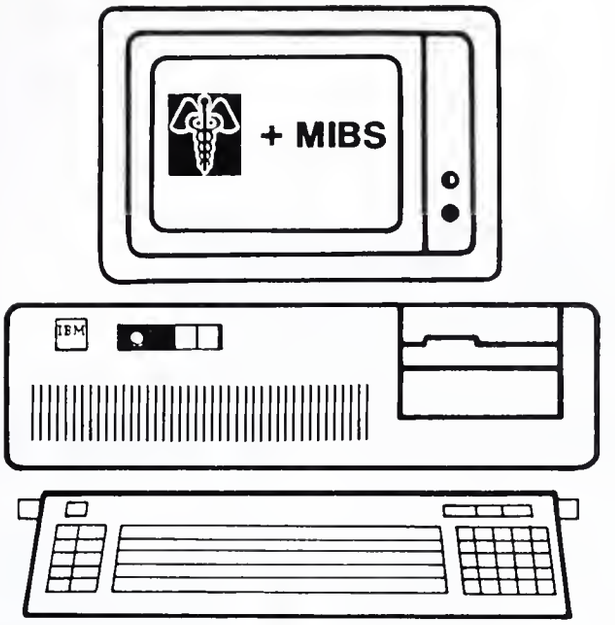
TABLE 2.

Colchine Therapy for ITP, combined data

No. Pts	Complete remission	Partial remission	No. response	Ref.
19	3	12	4	Harrington BLOOD 81:200, '81
14	3	1	10	LuBuglio Arch. Int. Med. 144:2198, 1984.
4	1	2	1	R. Jim
1		1		F. Elizaga
38	7	16	15	





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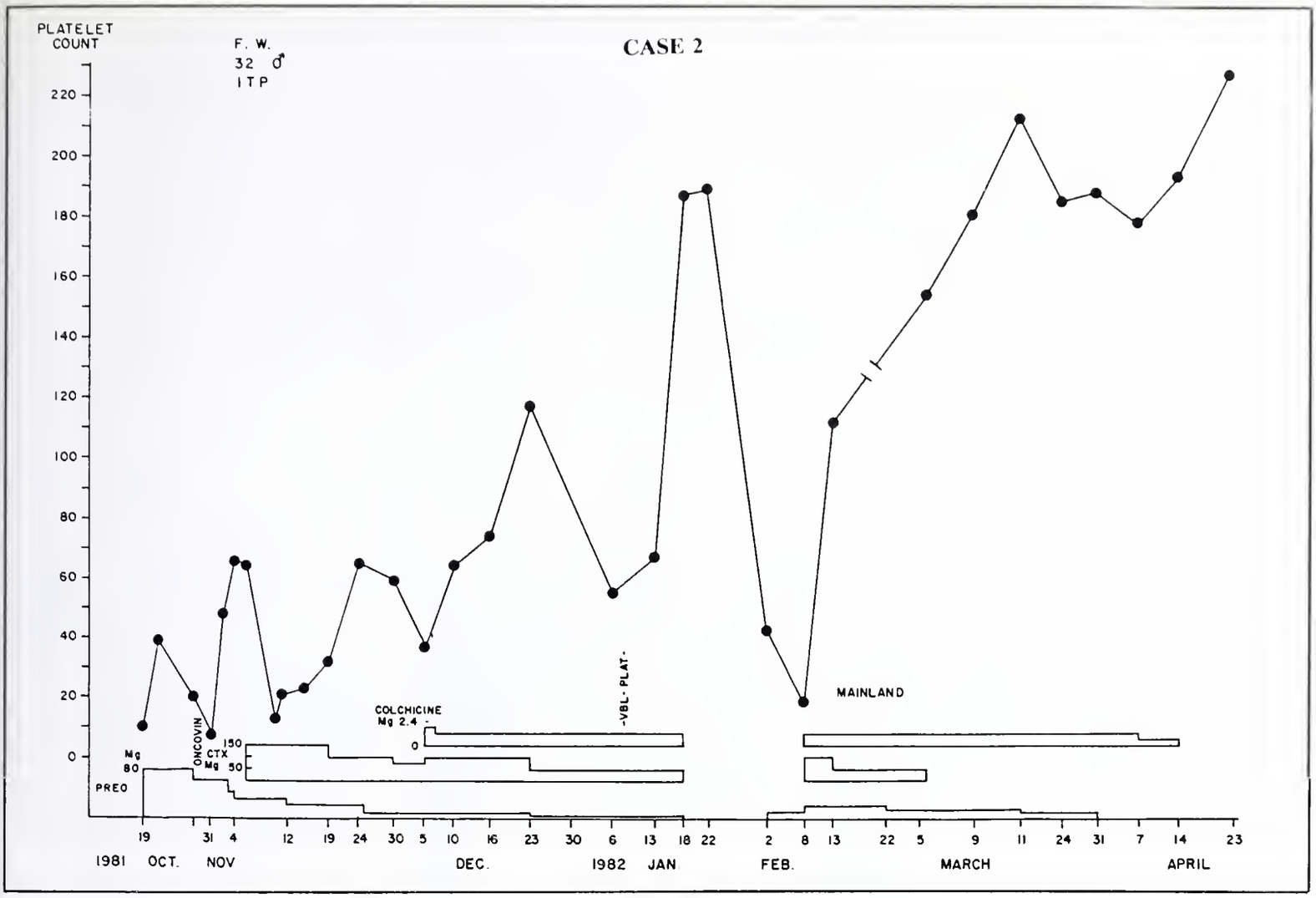
Muscular Dystrophy Association, Jerry Lewis, National Chairman


CASE 2
PLATELET COUNT
F. W.
32 ♂
ITP
220
200
180
160
140
120
100
80
60
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COLCHICINE Mg 2.4
ONCOVIN
CTX Mg 150
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Mg 80
PREO
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MAINLAND
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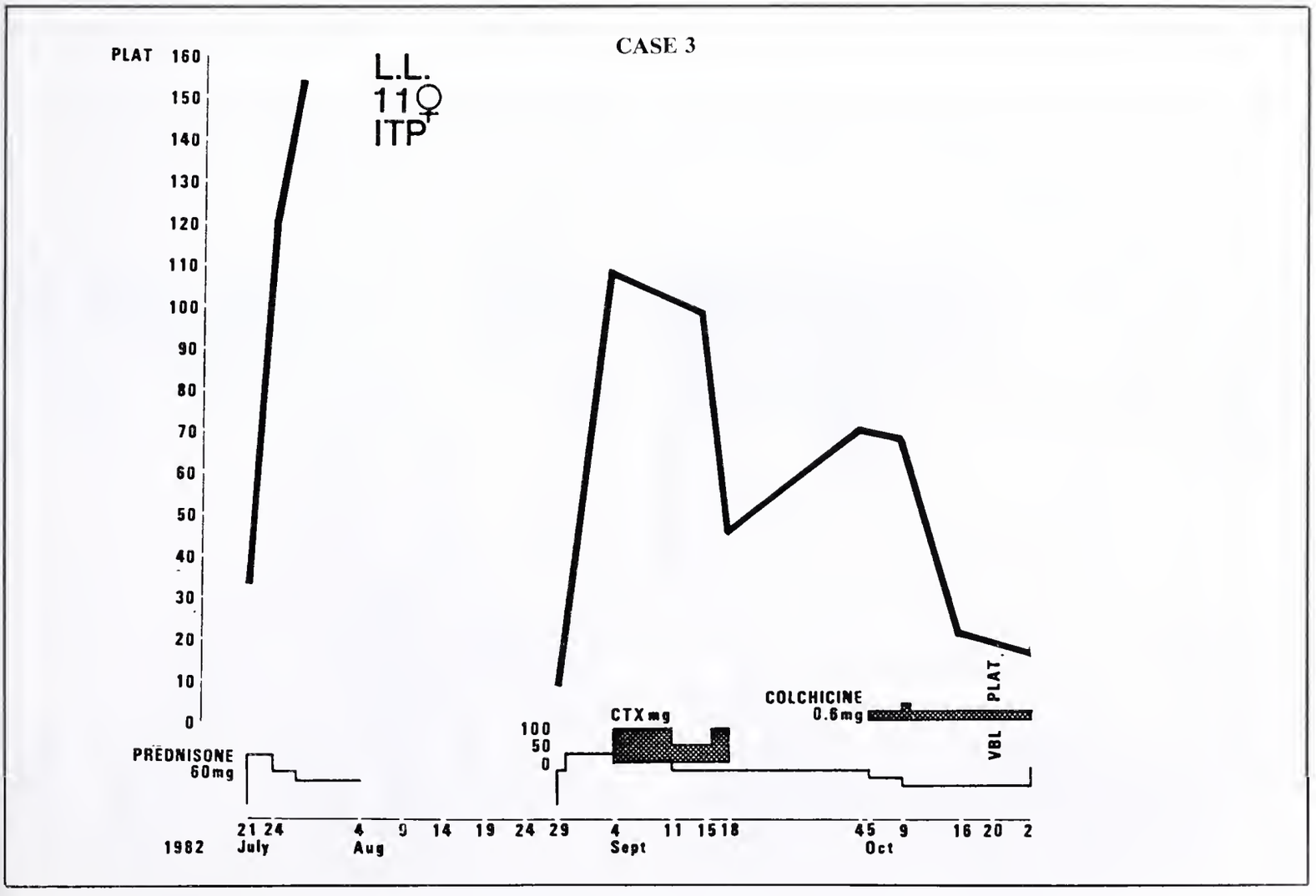
CASE 3
PLAT
160
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130
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L.L.
11♀
ITP
COLCHICINE
0.6mg
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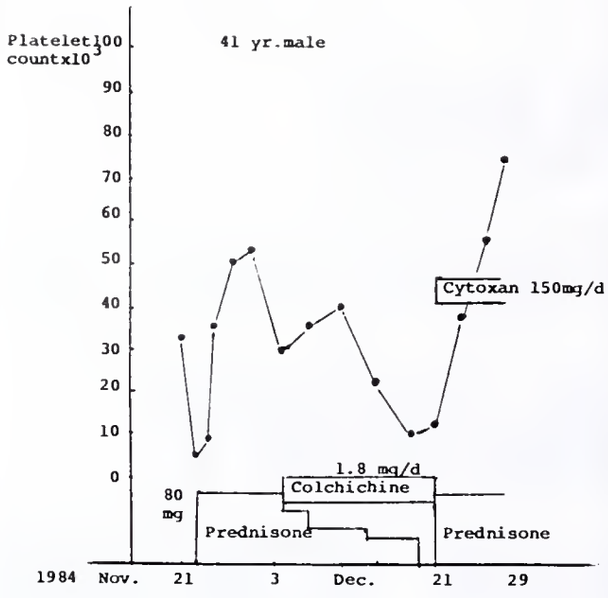
1982 July Aug Sept Oct

CASE 4



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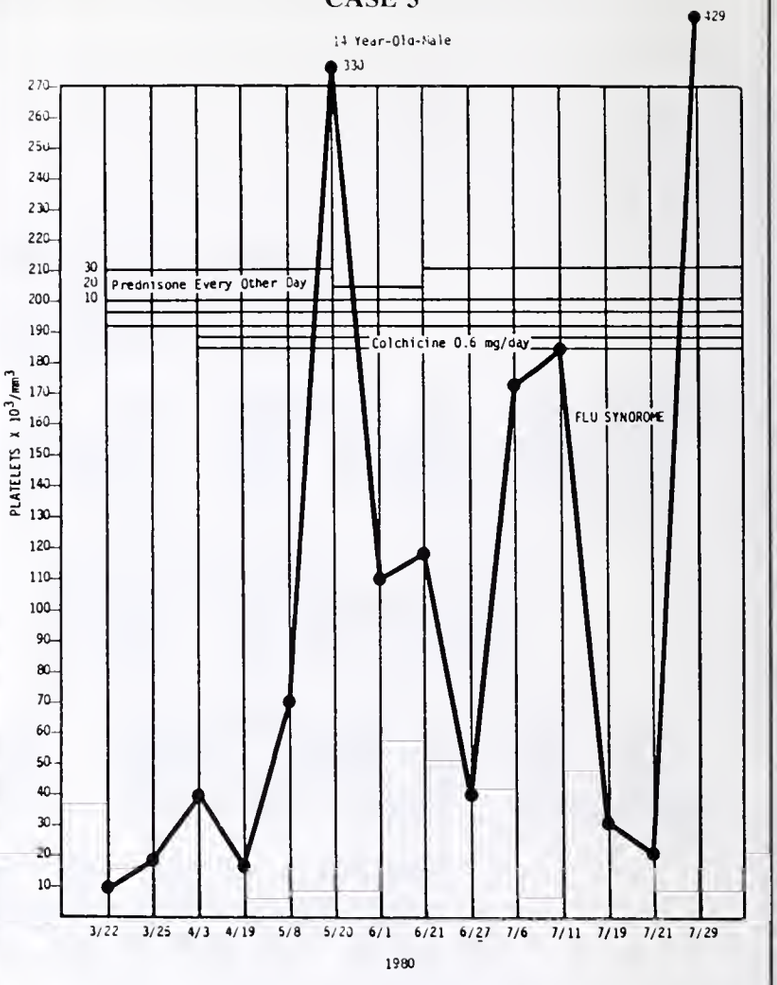

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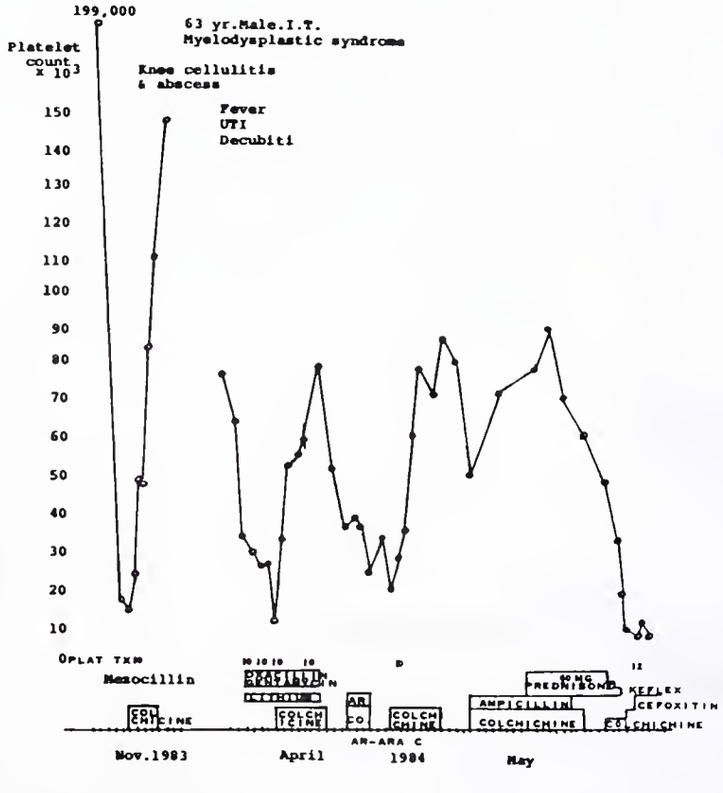
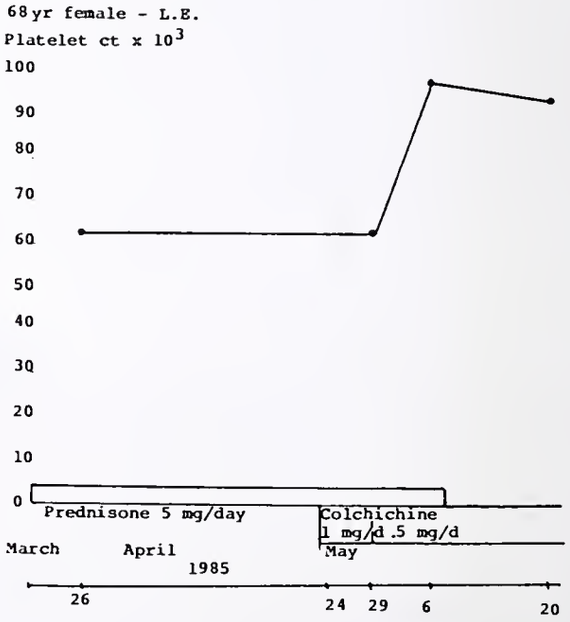


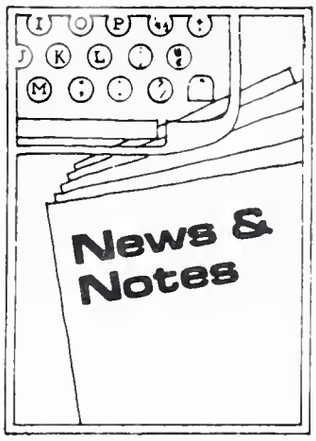
CASE 7



Tort Reform Demonstration

A "Dignified Demonstration" of physicians and health care professionals was held June 10 at the State Capitol and neighbor island hospitals to urge Governor Ariyoshi to call a special session of the Legislature. Approximately 260 supporters appeared with white lab coats, stethescopes and posters to express the medical profession's concern about the current liability insurance crisis and its effects on patients and the general public.

Statements were made by HMA President RUSSELL STODD, MD and Task Force chairman WILLIAM H. HINDLE, MD and a number of state legislators at each meeting. We believe our message has reached the ears of legislators, the Governor, and the public as a whole, especially since representatives of press and broadcast were all there.



HENRY YOKOYAMA, MD

Perspective From a Glass of Water, Half Filled

The pessimist sees the glass as half empty . . . The optimist sees the glass as half full . . . .

Likewise, there are physicians who feel the medical profession beset with all its problems, will continue its steady decline . . . But some of us feel that it has weathered the worst and is now on the upswing . . . .

Life in These Parts . . .

Karl Pregitzer, Director, Emergency Medicine, Kaiser Hospital, writes in a Letter to the Editor: "On April 10, "Magnum, PI" clearly showed Tom Selleck and a female co-star driving through Kahala. The scene emphasized rather reckless driving by the female co-star — at least it appeared Tom thought so. Unfortunately, neither was wearing seat belts. I would like explained why a nationally syndicated show filmed in Hawaii would blatantly break Hawaii's seat-belt law, especially when it is under the supervision of off-duty Honolulu policemen who supply security and traffic control during filming . . . etc, etc . . ." (Ed. There is more . . . Karl is to be commended for his perspicacity . . .)

Dwayne Reed, director of the Honolulu Heart Program at KMC reports that the risk of hemorrhagic strokes is about three times higher for heavy drinkers than non-drinkers . . . Even those who are considered light drinkers are twice as likely to have such strokes . . . (A light drinker consumes fewer than 28 drinks a month and a heavy drinker takes more than 80 drinks a month) Katsuhiko Yano was the principal investigator for the study which studied 8,000 men regularly since 1965 at KMC.

We are indebted to realtor Margaret Sung of Ace Properties Inc. for her expertise in helping HMA find a qualified buyer for the Ward Street HMA building from among the many offers submitted . . . (per Nelson Jones)

Life in These Parts . . .

Cal Sia told the Senate Foundation Committee that isle students with problems ranging from truancy to attempted suicide need more attention in school . . . "Physicians and educators agree that one of the major factors contributing to a child's optimal accomplishment in school is freedom from any disabling handicaps, whether organic or psychosocial . . ." Cal feels that school support services concentrate on students certified as being handicapped but support services for regular and gifted students are fragmented and he proposed resolutions to study and correct the situation . . .

The Kaiser Foundation Health Plan Inc. is seeking SHPDA approval for a clinic in Kailua-Kona . . .

HMSA increased its membership by 20,000 to a total 570,000 in 1985 and reported 1985 as one of the best years in membership growth since the 1950s. It paid $316 million in direct benefits and another $308 million in government sponsored programs . . .

In March, Paul Stevens announced that the financially troubled Molokai Clinic (with six family practitioners) would close on April 30 . . . Paul explained in a letter to their patients that "the decision was forced upon us primarily by a financial crisis resulting from marked increases in operating expenses in 1986, e.g. a 4-fold increase in malpractice insurance . . ." The Clinic had to stop delivering babies earlier because of the exorbitant increase in malpractice premiums for obstetrics . . .

Radiotherapist Paul De Mare is the great-great-grand nephew of Mother Marianne . . .

Denis Mee-Lee, chief of the state Mental Health Division for the past 9 years, is frustrated by the lack of state funds and the bureaucratic process. Hawaii was rated 51st in the US by consumer advocate Ralph Nader's group . . . Everyone agrees that the report on the State's Mental Health Program is flawed, but Mee-Lee told the state House and Senate Health Committee, "I would urge, plead, for your involvement with this issue." Hawaii spends only 1% of the total government budget on mental health and ranks 46th in the nation . . .

Conference Humor

Murphy's Law: "If anything can go wrong, it will" . . . Pons' Corollary to Murphy's Law: "In any field of scientific endeavor, anything that can go wrong, will . . ." (as told by Vincent D. Pons, visiting professor from UCSF lecturing on "Osteomyelitis.")

St. Peter was at the Pearly Gates as usual checking in the new arrivals. The Pope, his time up, arrived and seeing the long waiting line, went straight up to St. Peter: "You know me . . . my credentials are immaculate and need no checking . . ." St. Peter said, "Oh yes, we have been expecting you. But there are so many other equally good people ahead of you, please wait in line with the others . . ." So the good Pope went to the end of the line. Just then, a snow-white Cadillac pulled up on a cloud . . . A white-haired, imposing figure clad in white jacket, white scrub suit and surgical shoes, carrying a white medical bag, a white stethoscope draped on his shoulders, got out and without a word, strode up to the Pearly Gates which automatically opened and let him through . . . The Pope was curious and went up to St. Peter and asked, "who was that?" St. Peter assured him, "You must understand . . . that was God . . . every now and then, He likes to play doctor . . ."

(As told by Roland Kaye, Stanford visiting professor who spoke on "NSAID's: A Way out of the Maze.")

Elected, Appointed and Honored

Erlinda Cachola was one of 11 state winners of the Thomas Jefferson awards for 1986 . . . Bob Nordyke was awarded the Straub Foundation's Excellence in Research Award for his paper describing the relationship between age and signs of hyperthryoidism (based on his examinations of 800 hyperthyroid patients). Other researchers receiving honorable mention included David Fitz-Patrick, David Fergusson, Morris Mitsunaga, William Tsushima, and Annette Higuchi . . . Greg Yuen is booked this summer for Talknet, the NBC radio show outta New York . . . Meantime Greg's scribbling a book — "Natural Success" (MidWeek, April 23) DOH Appointments: Richard Frankel, chief of Tuberculosis Branch, Communicable Disease Division . . . Noelani Apau, chief of School Health Services Branch, Family Health Services Division . . .

In April, urologist John Edwards was being considered by the City Council for appointment to the Honolulu Liquor Commission. John was nominated by Mayor Fasi after reports of racial discrimination against blacks and military

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Kualoa	1.84 acres, mtn/ocean views, serene (L)	$499,900

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personnel at Waikiki discos . . . John feels that racial discrimination in Hawaii is an "aberration." (Ed. We agree . . .)

Lincoln Luke was elected president of the Hawaii Chapter of the American Academy of Family Physicians . . . Mary Flynn, Resident with the UH Medical School integrated pathology program, will become deputy medical examiner in July to assist Alvin Omori . . .

William Yarbrough is the new chairman of the Pan-Pacific Surgical Association. Other officers are James Penoff, chairman-elect; Kazuo Teruya, treasurer and Ray Taniguchi, first vice-chairman . . . Board members are Clifford Straehley, past chairman, Peter Barcia, Thomas Kosasa, Allan Kunimoto, William Montgomery, Kent Reinker, Walton Shim, John S. Smith, Harvey Takaki and Thomas Whelan . . .

Al Chun Hoon was re-elected chairman of the 27 member HMSA board of directors . . . Kailua gastroenterologist Rodney Kazama has been certified by the American Board of Gastroenterology . . . George Ewing, chief of allergy and clinical immunology at Straub Clinic was re-certified by the American Board of Allergy and Immunology . . . Richard Littenberg was elected chairman and president of the Honolulu Medical Group Research and Education Foundation and Unoji Goto treasurer . . .

Miscellany

Once upon a time, the little white church on the hill needed painting badly . . . With congregation approval, the pastor asked for bids from contractors in town. The lowest bid was submitted by an unscrupulous contractor who went to a shady store and ordered a gallon of paint and several more gallons of paint thinner . . . He cut the gallon of paint with gallons of thinner and would dip his brush into more thinner as he worked . . . He thus, shrewdly managed to finish the whole church with the single gallon of paint . . . Just then, the skies darkened and there was thunder, lightning and a cloud burst . . . The fresh coat of paint was completely washed off. The distraught contractor shook his fist at the sky and yelled, "God! How can you do this to me!" A voice from above commanded: "Repaint! Repaint! Thin no more!" (Heard in Howard Keller's office in Kailua by Claire Loo Nakatsuka, MSD rep.)

Hors De Combat I

In March, psychiatrist Carol Brown, chief of the Chidren's Mental Health Services Branch of DOH was being investigated by the state Medicaid Fraud squad and we were entertained by her magnificent eloquence: "All I know is that I've been working my tokas off during the last five years and I think I've earned every penny I've made . . ." "I think it's politics . . . I think I'm a haole in the state of Hawaii . . . I've never tried to defraud anyone . . . I've put in claims only for services rendered . . ."

In April, Carol Brown submitted her resignation as 7-year chief of the branch but not without a fight: "I have done everyting I know how to do to effect positive change from within the system . . . These efforts are like trying to move a 2-ton marshmallow . . ." "I can get out of the trees and have a look at the forest while supporting the election of a new administration more responsive — one that offers more than a Band-Aid approach." "It's an embarrassment to see ads in our national psychiatric journal advertising for psychiatrists for Hawaii State Hospital at a salary of $48,000 a year while California, Alaska and other states pay $80,000 to well over $100,000 . . . Hawaii needs to wake up . . . Sunshine and pineapples just don't cut it anymore . . ."

Rep. Cam Cavasso, a Republican from the Lanikai-Waimanalo area, condemned a stock of pamphlets detailing the dangers of AIDS . . . The pamphlet, distributed by the Life Foundation of Honolulu and prepared by a committee of San Francisco physicians, lists six sexual activities that are safe and describes sexual practices that are risky and unsafe . . . "Taxpayer's money is being used to promote unnatural and inhumane acts between homosexuals . . .", Cavasso was offended by the "street" phrasing . . . DOH Communicable Disease Branch chief Arthur Liang reports that the DOH has developed its own less graphic material for schools, but defends the pamphlets: "Some people, though, need more direct language . . . We have to individualize our health education . . . For those people who we think aren't going to get the message without being more specific, we have to be more specific . . ."

In March, the state DOH was told it had 60 days to respond to severe criticisms of the Waimano Training School, or risk losing certification and $6 million in Medicaid reimbursements . . . The Feds (DHHS) inspected the facilities and produced a 52-page report outlining the violations . . .

Health Dept.: Too Political to Work Well, Critics Say . . .

Critics say the DOH should not be in the business of running hospitals . . . A private enterprise would be out of business if it sustained losses of $10 to 12 million each year . . . Jerrold Michael, dean of the UH School of Public Health feels there is a conflict of interest since DOH also regulates and licenses hospitals . . . Abelina Shaw, DOH deputy director comments on the current $80 million budget for the 12 hospitals and one medical center as follows: "That's not bad for an operation that large . . ." But then, Richard Lundborg, who resigned in 1982 after 10 years as chief of anesthesiology at Hilo Hospital testified, "I've never seen any hospital run so inefficiently . . . The patients always get the raw end of the deal in government hospitals . . ." QMC VP Drake Will commented, "Bureacracy should not run a hospital. Any government run operation is always under the political gun . . ."

Maui Memorial is the only fiscally sound DOH hospital and receives no money from the state general fund. Health Director Leslie Matsubara says "Maui has the population base . . . But look at Honokaa, Ka'u, Kohala — they just don't have the population there." To Drake's suggestion, "I would think the State would be delighted to get out of the hospital division," Leslie commented, "Such a proposition is highly political. The rural areas that now have a hospital aren't going to give them up easily . . . People problems dominate."

Hors De Combat II

Former BOH chairman Donald Char says "The politicalization of the state DOH has stymied long range planning and coordination of progress to benefit Hawaii residents . . . I feel very, very strongly that Hawaii needs to emerge with a new paradigm for health care . . ." KWCMC Medical Genetics director Ed Hsia says the agency is "seen as a department of the governor and not of the medical community . . . The hierarchy is administrative, political, legal and financial . . . The fact that it is related to health is somewhat suppressed . . ." Dean Jerrold Michael of the School of Public Health says, "The head of the Health Dept., unlike any academic head, doesn't have the bureaucratic privilege of speaking his mind." Don says, "The DOH's relationship with the UH has not been the warmest . . . The University and the Health Dept. are seen too often as adversaries . . ." A solution suggested by Jerrold is to allow professionals to hold positions with the University and the DOH at the same time and work half time for each employer . . . The "duality" would enable DOH quick access to the professionals and lab facilities at the UH . . . DOH director Matsubara was less than keen about the concept . . .

Don Char in a letter to the editor (Honolulu Star-Bulletin, April 26) summarizes the immediate and future problems of the DOH and recommends, "Our state DOH will require a strong, dynamic, articulate director, one who is experienced and knowledgeable about the field of health care. Such a leader must be respected and trusted by all elements

of the community, both in the public as well as private sectors."

Oncology Dialogue

A 54-year-old Oriental man with recurrent hematuria had a left renal tumor. Attempts at infarcting the kidney failed because of abnormal vessels. The patient subsequently had an uneventful nephrectomy and was discharged. A misplaced CAT-scan report was discovered after the patient's discharge which reported a RLL tumor and a possible LLL lesion. The patient was readmitted for a thoracotomy. Surgeon Glen Kokame: "I suggested a sternal splitting approach to explore both lungs, but the patient opted for a Rt thoracotomy instead." Glenn resected a fairly large RLL tumor and plucked out 5 other confluent 1/2 cm nodules. Pathologist Larry McCarthy reported the tumor cells consistent with metastatic renal cell CA . . . Since the five other lesions were unreported on the original scan, pathologist Grant Stemmerman asked David Sakuda, "What's the slice interval with the CT scan . . .?" David: "Our scan can be adjusted from 1 to 5 cm intervals, but there can be gaps between slices when the patient moves or takes a breath . . . It often takes 2 hours for a lung scan." Stemmy pressed the issue: "I wonder if we can increase the yield by smaller and more frequent slices?" David agreed, "That's a good point, but we have so many patients waiting for scans on a given day . . ." Then neatly muzzled Stemmy with a compliment: "I'm glad someone understands the concept." Moderator Glenn asked, "Why do the mets cluster as they do?" Stemmy waxed poetic: "When the Ohio and Mississippi rivers merge, they remain as separate streams for quite a ways . . ." Oncologist Jeff Nakamura felt that the patient was a candidate for the interleukin protoccol . . ." There are five centers looking for patients . . . Interferon may be a second modality . . ."

Over the Editor's Desk

EG AND G'S PUBLICATION, SCIENCE AND TECHNOLOGY UPDATE, describes "Nova," the world's most powerful laser, housed at the Department of Energy's Lawrence Livermore National Laboratory in California.

Nova is named for an exploding star; its heart is a 16-foot-in-diameter aluminum sphere (see picture) wherein small pellets of heavy isotopes of hydrogen are made to fuse by intense laser light pulses, generating heat of greater than 100 million degrees for a few billionths of a second, releasing energy equivalent to what comes out of the sun and stars. "The present and near future goal of this research is that Nova can be a tool for studying weapons physics . . . but the ultimate goal is . . . to generate controlled and nearly inexhaustible electrical energy on earth."

A FREE COMIC BOOK FROM THE CANCER RESEARCH CENTER OF HAWAII MAY SAVE YOUR SKIN. Keeping in shape not only means eating properly and exercising regularly, but keeping your skin in shape, too. Being out in the sun increases your chances of premature aging and skin cancer.

The Hawaii Cancer Information Service will send you a free comic book called "The Incredible Adventures of the Howzit Family." Call 524-1234 for your free copy between 8:30 a.m. ando 4:30 p.m. weekdays. Neighbor Island residents may call collect by dialing 0-524-1234. Mailing address is 1236 Lauhala St., Suite 502, Honolulu 96813.

All skin types are at risk for skin cancer. So let the Howzit Family show you how proper skin protection and effective sunscreens can help take care of your skin. The booklet was drawn by well-known local artist Harry Lyons specifically for Hawaii people.

SURGICAL STAPLING IS THE FASTEST-GROWING SEGMENT OF THE WOUND CLOSURE MARKET — The procedure saves time in the operating room and is an improved method for some types of surgery, particularly colorectal anastamosis, according to Theta Corp. Surgical stapling currently accounts for an estimated $250 million annual market, and is growing at a healthy rate.

THERE ARE CURRENTLY 450,000 PHYSICIANS IN THE U.S., OF WHICH 55 PERCENT (250,000) ARE IN SOLO OR GROUP PRACTICES The number of group practices is growing at a rate of 12 percent annually, and is expected to reach 30,000 by 1990, according to Theta Corp.

CARE FOR THE INDIGENT IS A GROWING CONCERN, SAYS THE AMERICAN HOSPITAL ASSOCIATION. Despite the creation of Medicaid 20 years ago, the number of individuals who have inadequate, or no, health insurance is reaching record proportions. Many Americans assume that Medicaid covers the health care needs of the indigent, but consider:

- Medicaid coverage of the poor has declined sharply. By 1984, Medicaid covered less than 40 percent of the poverty population, compared with nearly 70 percent when the program began.
- The number of uninsured is increasing. By 1984, nearly 33 million people had no health insurance and another 17 million had inadequate coverage, representing about 25 percent of the non-elderly U.S. population.
- Contrary to popular belief, most of the uninsured are employed. About 65 percent are working adults or their dependents.
- The amount of uncompensated care provided by hospitals is rising, amounting to $5.7 billion in 1984. Because the major sources of hospital financing — government and private payers — are less willing to subsidize care for the medically indigent, the care is being provided by fewer hospitals. As a result, the ability of these hospitals to subsidize the cost of indigent care has diminished. Currently 5 percent of hospitals provide 37 percent of all uncompensated care.

KUAKINI GERIATRIC CARE INC. OFFERS A SERVICE that allows people who care for the elderly at home to take a vacation without having to worry about the welfare of the elders.

Elders who are ambulatory but need supervision will be able to live in Kuakini Home on a temporary basis.

For more information on this short-term respite care service, call Kuakini Home at 547-9208 between 8 a.m. and 4:30 p.m. on weekdays.

THERE'S GOOD NEWS FOR LEUKEMIA PATIENTS who frequently have to undergo painful bone marrow tests to monitor the disease. A new blood test that measures levels of an enzyme known as terminal deoxynucleptidyl transferase (TdT) enables physicians to continuously monitor leukemia patients without taking bone marrow specimens. Furthermore, the test is highly cost-effective because bone marrow aspirations average $110 and the blood test costs $35. Write Abbott Laboratories at Abbott Park, Ill. 60064 for further information.

UNLOCKING THE SECRETS OF THE IMMUNE SYSTEM IS LEADING TO REVOLUTIONARY NEW VACCINES. A birth control vaccine, one of the first in the world to reach the clinical trial stage, will be discussed at the Sixth International Congress of Immunology in Toronto July 6 through 11.

The vaccine, which is being tested on women in Australia, evolved from research coordinated and sponsored by the World Health Organization. It was developed by Dr. Vernon Stevens of Ohio State University. The human trials are being supervised by Dr. Warren Jones at

the Flinders Medical Centre in Adelaide, Australia. Both doctors will be among the more than 8,000 scientists attending the congress.

The vaccine prevents pregnancy by neutralizing a hormone called human chorionic gonadotrophin (HCG) produced by the body soon after fertilization and is essential for maintaining a pregnancy. The immune system plays an important role in producing hormones that prevent the mother from rejecting her fetus. By blocking this particular hormone, the reproductive process cannot continue.

REICHERT FIBER OPTICS INTRODUCES NEW FUS-7 AND FUS-9 FLEXIBLE URETEROSCOPES. The ability to assess, diagnose, and treat ureteral pathology has just become easier and more cost-effective with new Reichert FUS-7 and FUS-9 flexible ureteroscopes. These small, flexible 7 and 9 French fiber-scopes are introduced in the same manner as ureteral catheters. They provide an excellent, high-resolution view of the ureter and renal pelvis with minimal trauma or ureteral dilation.

Both ureteroscopes have operating channels for irrigation and use of accessories, such as stone retrieval baskets, loops, and forceps.

Ease of insertion, patient comfort, and procedural cost-effectiveness are only some of the benefits.

For more information or a demonstration, contact: Reichert Fiber Optics, Division of Warner-Lambert Technologies Inc., 122 Charlton St., Southbridge, MA. 01550. Or call toll-free: (800) 343-6120.

A FEW MARTINIS AND A GOOD NIGHT'S SLEEP DON'T MIX, despite beliefs to the contrary.

A nightcap, downed an hour or so before bedtime, may "knock out" a weary insomniac — or any other person — but the alcohol will fragment the sleep, causing it to be lighter and punctuated with awakenings.

The drinks could also trigger a hidden, and possible fatal, breathing defect that's often seen in the elderly and in overweight men, particularly those who snore.

ABA ENDORSES FIVE ACTS DRAFTED BY THE UNIFORM LAW COMMISSIONERS. The American Bar Association endorsed five acts promulgated by the National Conference of Commisioners on Uniform State Laws at its Annual Midyear Meeting Feb. 5 through 12 in Baltimore, Md. The acts included:

Health-Care Information Act: Ensuring access of patients to their own medical records and confidentiality of patient records from third-party access.

Rights of the Terminally Ill Act: enabling competent adults to execute a declaration specifying the withholding of life-

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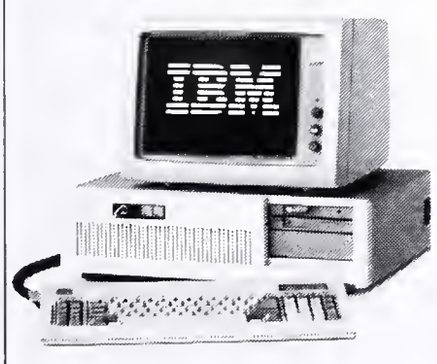

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HOSPITAL OUTPATIENT VISITS SOAR IN '85 WHILE INPATIENT OCCUPANCY DROPS. For the second consecutive year, hospital occupancy fell to a record low while outpatient visits soared to a record high, according to year-end American Hospital Association statistics. Hospital occupancy dropped to 63.6 percent in 1985 from the previous low of 66.6 percent in 1984. The decline would have been even more dramatic had hospitals not closed more than 18,000 beds in 1985. Outpatient visits, which increased by more than three million in 1984, rose nearly four times that amount (11 million) in 1985 to nearly 245 million visits.

THREE GLASSES OF MILK DAILY MAY PREVENT ALZHEIMER'S DISEASE. It may be possible to decrease the risk of developing Alzheimer's disease by drinking three to six glasses of skim milk every day, according to Johan B. Jorksten, Ph.D., of Houston, Texas.

The object is to overwhelm the impact of the aluminum found in food, water and medications, he told the American Society of Contemporary Medicine and Surgery. Concentrations of the metal have been found in the brains of people with Alzheimer's disease, which is the most common cause of senility in this country.

The metal is used in pots and pans, but is leached out only if they are used to cook acidic foods such as rhubarb or tomatoes. Alum is also contained in some baking powders, antacids, and cream substitutes.

Perhaps more serious is the aluminum sulfate added to community water supplies to reduce turbidity. Exposure to the potentially dangerous material is the price we pay for clear, sparkling water, Jorksten said.

BRENTWOOD INSTRUMENTS HAS INTRODUCED A NEW AUTOMATIC THREE-CHANNEL ECG, the Cardimax FX-406U. This sophisticated instrument records a standard 12-lead ECG plus rhythm leads. It features three sensitivity settings, two filters, two chart speeds, and interval recording for stress testing. Input/output jacks for use with an oscilloscope or telephone transmission equipment come as standard features.

This Cardimax instrument from Fukuda Denshi has a very visible heart rate display (range 30 to 230 bpm). An optional copy feature eliminates photocopying of the completed ECG. And finally, two report formats — one with rhythm lead groups — are available at

(Continued on page 242)

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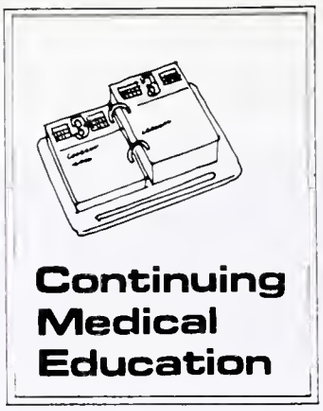

Continuing Medical Education

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LOCAL ACCREDITED PROGRAMS
ONGOING

For a complete list of ongoing programs, please refer to the March 1986 issue of the HAWAII MEDICAL JOURNAL. Further information is available through the individual institutions or through the HMA's CME Department.

SPECIAL EVENTS

All special events should be confirmed with the CME program sponsors, as cancellations are not necessarily reported to the HAWAII MEDICAL JOURNAL.

July 7-12, 1986	XVIII International Congress of Pediatrics, American Academy of Pediatrics, 141 Northwest Point Rd., P.O. Box 927, Elk Grove Village, Ill. 60007, (312) 228-5005. Location: Sheraton-Waikiki Hotel, Honolulu.
July 12-16, 1986	Post-Congress Seminar of the XVIII International Congress of Pediatrics, American Academy of Pediatrics, (800) 433-9016. Location: Sheraton Royal Waikoloa, Big Island; Waiohai Resort, Poipu, Kauai; and Maui Marriott. Also held June 16 through 19.
July 13-16, 1986	Allergy and Clinical Immunology for Primary Care Physicians, Dr. R. Michael Sly, MD, Children's Hospital National Medical Center, 111 Michigan Ave. N.W., Washington, D.C. Location: Hilton Hawaiian Village.
July 19, 1986	Sports Medicine Symposium, Timothy Olderr, MD, 888 South King St., Honolulu, (808) 523-2311 and HMA, 320 Ward Ave., Suite 200, Honolulu, (808) 536-7702. Location: Punahou School.
July 21-26, 1986	Family Practice, College of Osteopathic Medicine of the Pacific, (714) 621-3861. Location: Coco Palms Resort, Kapaa, Kauai.
Aug. 1-6, 1986	Presymposium Workshop, (in association with Aug. 10-15 symposium), Southern California Neuropsychiatric Institute, Stacey W. Grace, associate program director, 6794 La Jolla Blvd., La Jolla, Calif. 92037. Location: Stouffer's Wailea Beach Resort, Maui.
Aug. 3-8, 1986	Reproductive Problems: Issues and Answers, cosponsored by the American Fertilty Society and Serono Symposia, USA, 2131 Magnolia Ave., Suite 201, Birmingham, Ala. 35256-6199, (205)

	251-9764. Location: Turtle Bay Hilton, Oahu.
Aug. 8-12 , 1986	Internal Medicine Update, American College of Physicians, P.O. Box 777-4-0510, Philadelphia, Pa. 19175, (800) 523-1546. Location: Sheraton Princeville, Kauai.
Aug. 10-15, 1986	XIII Annual Mauna Kea Symposium, Asia/Pacific Folk Healing and Occult Practices, Southern California Neuropsychiatric Institute, Stacey W. Grace, associate program director, 6794 La Jolla Blvd., La Jolla, Calif. 92037, (619) 454-2102. Location: Mauna Kea Beach Hotel, Big Island.
Aug. 16-27, 1986	29th Annual Postgraduate Refresher Course, University of Southern California School of Medicine Postgraduate Division, Associate Dean, KAM 307, 1975 Zonal Ave., Los Angeles, Calif. 90033, (800) 421-6729 or in California, (800) 321-1929. Travel information: 3500 S. Figueroa, Suite 217, Los Angeles, Calif. 90007, (800) 821-5094, or in California (213) 746-1384, or outside (800) 521-6511. Location: Sheraton-Waikiki Hotel, and Kapalua Bay, Maui or Sheraton Princeville, Kauai.
Aug. 17-22, 1986	California Society of Anesthesiologists, Hawaiian Seminar on Clinical Anesthesia, California Society of Anesthesiologists Educational Programs Division, (415) 348-1407. Location: Waiohai Resort Hotel, Poipu Beach, Kauai.
Aug. 30-Sept. 1, 1986	Expanding Sexual Potentials to Improve Relationships, Communication and Health, Brauer Medical Center, (415) 329-8001. Location: Kapalua Bay Hotel, Maui.
Oct. 10-12, 1986	Hawaii Medical Association 130th Annual Scientific Meeting — Stress and Heart Disease, Jennie Asato, Hawaii Medical Association, 320 Ward Ave., Suite 200, Honolulu 96814, (808) 536-7702. Location: Westin Ilikai Hotel, Honolulu.
Oct. 18-25, 1986	Operative Arthroscopy, Janet Frank, assistant director, Continuing Education in Health Sciences, UCLA Extension, 10995 Le Conte Ave., Room 614, Los Angeles, Calif. 90024, (213) 825-8423. Location: Maui.
Oct. 18-26, 1986	Annual International Body Imaging Conference, Dept. of Radiology, West Park Hospital, 22141 Roscoe Blvd., Canoga Park, Calif. 91304, (818) 340-0580 X280. Travel agent: Innovations in Travel, 9545 Reseda Blvd., Northridge, Calif. 91324, (818) 701-1164. Location: Maui Marriott.
Oct. 20-24, 1986	New Approaches to the Evaluation of Neoplastic Lymphoproliferative Disorders, co-sponsored with the University of Southern California, Dr. John Parker, professor and co-chairman, Department of Pathology, University of Southern California School of Medicine, 2025 Zonal Ave., Los Angeles, Calif. 90033, (213) 224-7121. Location: Maui.
Nov. 2-8, 1986	Districts VII-IX Continuing Medical Education, American College of Obstetrics and Gynecology, 600 Maryland Ave., SW, Suite 300E, Washington, D.C. 20024, Attn: Barbara Kallas, (202) 638-5577. Location: Hyatt Regency Maui.

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OVER THE EDITOR'S DESK

(Continued from page 236)

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LIFESCAN HAS INTRODUCED TWO NEW PERSONAL BLOOD GLUCOSE MONITORING SYSTEMS, the GLUCOSCAN™ 2000 and GLUCOSCAN™ 300 meters.

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ASPIRIN MAY BOOST IMMUNE SYSTEM. Hollywood, Fla. — If your doctor tells you to take two aspirin and call him in the morning, he may be counting on those tablets to prod your immune system lightly, in your body's fight against infection.

That was what Dr. Allan L. Goldstein of Washington, D.C., told the American Society of Contemporary Medicine and Surgery (ASCMS).

Aspirin is one of several agents involved in the new science of psychoneuroimmunology — the study of how the brain interacts with other parts of the body. It has long been suspected that hormones released by the brain affect the progress of disease, but it is now clear that this is part of the closed system, with "immunotransmitters" completing the cycle back to the brain.

DELAWARE HAS BECOME THE 28th STATE TO ADOPT THE UNIFORM DETERMINATION OF DEATH ACT originally promulgated in 1980 by the National Conference of Commissioners on Uniform State Laws, the American Medical Association, and the American Bar Association, with the assistance of Alexander M. Capron, executive director of the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research.

Brain death is defined as the irreversible loss of all brain functions, including those of the entire brain stem.

Cardiorespiratory failure is defined as the irreversible cessation of circulatory and respiratory functions. Additionally, the type of death determination whether cardiorespiratory failure or brain death is to be a medical decision.

ROBERT A. NORDYKE, MD, A SPECIALIST IN NUCLEAR MEDICINE, HAS BEEN NAMED TO RECEIVE STRAUB FOUNDATION'S EXCELLENCE IN RESEARCH AWARD. Nordyke's paper, one of five submitted for judging, described the relationship between age and signs and symptoms of hyperthyroidism.

Between 1960 and 1985, he examined 800 patients who had overactive thyroid glands (hyperthyroidism) and carefully recorded their signs and symptoms as they differed by age, sex, and race. His findings will make it easier for physicians to diagnose the disease, especially in older persons, where it is often difficult to detect.

OAHU, WHICH ACCOUNTS FOR 86 PERCENT OF THE STATE'S POPULATION, HAS RECORDED THE HIGHEST COMPLIANCE RATE NATIONWIDE WITH ITS SAFETY BELT USE LAW. More than eight out of 10 drivers and front-seat passengers on the island were buckled up during a study conducted in mid-February. A comparison study in early December, less than two weeks before the law took effect, found 37 percent usage by front-seat occupants.

The studies were conducted by Honolulu Community College on behalf of The Honolulu Advertiser. More than 4,300 drivers and front-seat passengers were observed at 16 locations during the February survey.

The Hawaii, California, and Connecticut compliance rates outpaced usage levels in the several other states enforcing new seat belt use laws.

THE AMERICAN INSTITUTE FOR CANCER RESEARCH IS SUPPLYING BREAST SELF-EXAMINATION INSTRUCTION AND REMINDER KITS to individuals requesting them.

"Through more regular breast self-examination, and through simple dietary changes to reduce dietary fat, and to increase consumption of fruit, vegetables, and whole-grain products, we feel there could be a significant reduction in breast cancer rates in this country," according to Marilyn Gentry, AICR vice president for education.

AICR reports that increases in the number of breast cancer cases and resultant deaths have largely paralleled the general increase in population.

"Since current estimates indicated that lung cancer will, in 1986, replace breast cancer as the leading cancer killer of women, some women have mistakenly assumed that breast cancer is not as serious a problem as it once was," Gentry said.

Free copies are available to those sending a stamped, self-addressed business-size envelope to AICR at Department BSE, Washington, D.C. 20069.

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AUGUST 1986
VOL. 45, NO. 8

Hawaii Medical Journal

CONTENTS

HAWAII MEDICAL ASSOCIATION 1856

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References: 1. Klimek JJ *et al: J Pediatr 96*:1087-1089, Jun 1980. **2.** Schwartz RH *et al: Rev Infect Dis 4*:514-516, Mar-Apr 1982. **3.** Cooper J, Inman JS, Dawson AF: *Practitioner 217*:804-809, Nov 1976. **4.** Antibiotic Sensitivity Report, Winter 1983. BAC-DATA Medical Information Systems, Inc. **5.** Data on file, Hoffmann-La Roche Inc., Nutley, NJ **6.** Wormser GP, Keusch GT, Heel RC: *Drugs 24*:459-518, Dec 1982. **7.** *Med Lett Drugs Ther 23*:93-95, Oct 30, 1981.

Please see summary of product information on the following page.

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(USPS 237-640)

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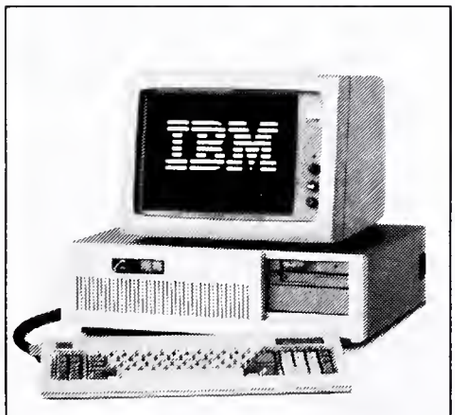

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Editorials

Special Cancer Issue, Hawaii Medical Journal

This is the second special JOURNAL issue devoted to cancer. Thomas C. Hall, MD, an oncologist and HMA member associated with the Cancer Research Center of Hawaii, has assembled these articles and obtained the funds to publish them in the JOURNAL. They are all of local origin.

With reference to the article by Fred I. Gilbert, MD, which reports on the famed Breast Cancer Detection Demonstration Project that started 12 years ago, we call the practicing physician's attention to the item that follows; it came to us recently from the American Hospital Association.

"New Weapons in the Fight Against Breast Cancer — A study conducted at the University of Michigan Medical Center, Ann Arbor, has found that mammography is widely underused as a screening technique despite its proven effectiveness as an early detection method for breast cancer. Why such underuse? Physicians tend to order mammograns for women who already have symptoms of the disease, rather than as a routine screening device, the study found.

"The researchers hope their study will prompt health care practitioners to educate their female patients about the importance of mammography so that it will become an equal partner with breast self-examination and clinical examination in screening for the disease. The American Cancer Society estimates that breast cancer will strike 119,000 American women in 1985 and take the lives of 38,000.

"While mammography can detect a breast cancer up to three years before the growth could be felt, 8 to 10 percent of cancers will now show up on a mammogram due to location or the type of surrounding tissue. Thus radiologists at Massachusetts General Hospital, Boston, are studying ultrasound, magnetic resonance imaging, computerized body tomography, and even lasers for their potential in detecting breast cancer.

"To encourage more women to perform breast self-exams and to have regular mammograms, some hospitals are opening special centers that are both convenient and comfortable for female patients. The center at Good Samaritan Hospital, Mount Vernon, Ill., for instance, puts patients at ease by surrounding them with homelike furnishings and by staffing the center with women only."

Our own brief, personal experience in a family practice office may be cited as pertinent at this point:

From April 1985 through April 1986, 196 female adult patients had complete physical examinations. Of these, 98 were in their 40s or older. Ninety-five were referred for mammoscreens for the first time (three had had previous mammograms). Out of the 95, 20 elected not to go for testing. Of the 75 that did go through with the combined radiography and palpation by an expert technician, two were found to have cancer, one had a biopsy that was determined to be a benign fibrous tumor, and the fourth patient had a cyst diagnosed by ultrasound.

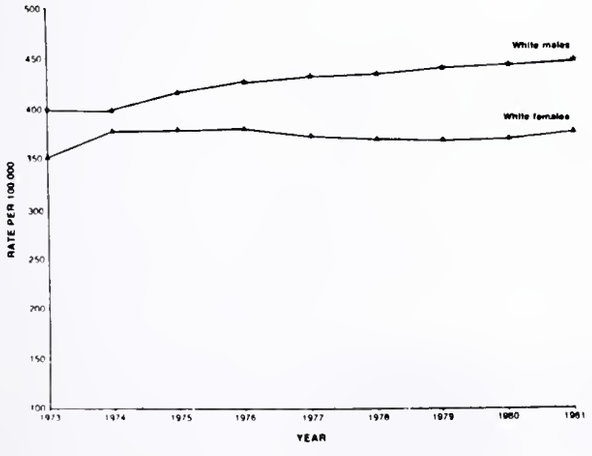
None of the four had "tumors" palpable by the physician, the patient, or the technician; the suspicion was generated as a result of the X-ray, proving its worth in our mind.

We found the ratio of those women who did BSE, as recommended by the ACS, to be one in two.

It took time to talk women into it, to review the statistics of the BCDDP with them, to reassure them that exposure to radiation had been reduced by 90 percent by modern apparatus and that the cost out-of-pocket was very reasonable and very worthwhile.

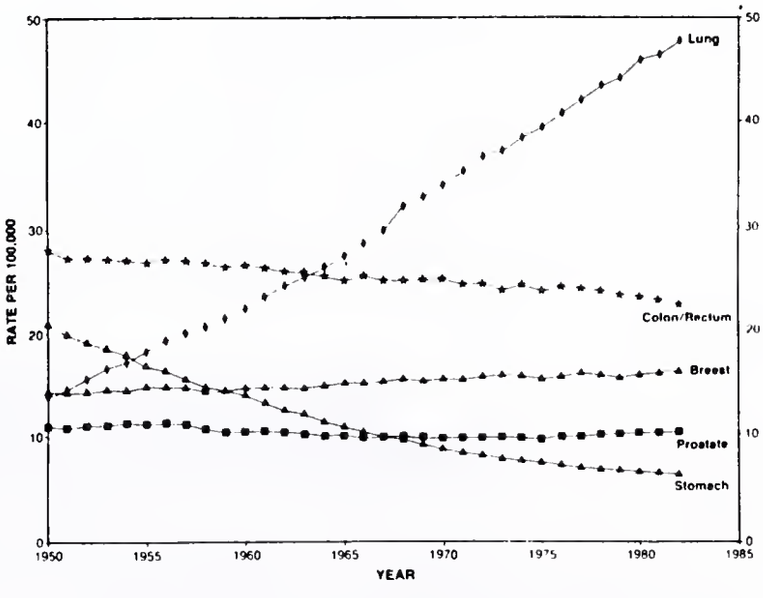
And, in relation to recent media articles citing cancer epidemiologists who feel that little more can be done to "cure" and that "prevention" is the way to go, the reader's attention is directed to the following sobering tables excerpted from the New England Journal of Medicine, Vol. 314, No. 19:

J.I. Frederick Reppun, MD
Editor



Incidence of All Cancers, 1973 through 1981, According to Sex, in the White Population of the SEER Registry Area.

Age was adjusted to the U.S. population of 1980.



Mortality from Cancer of Selected Sites, 1950 through 1982, in the Total U.S. Population.

Age was adjusted to the U.S. population of 1980.

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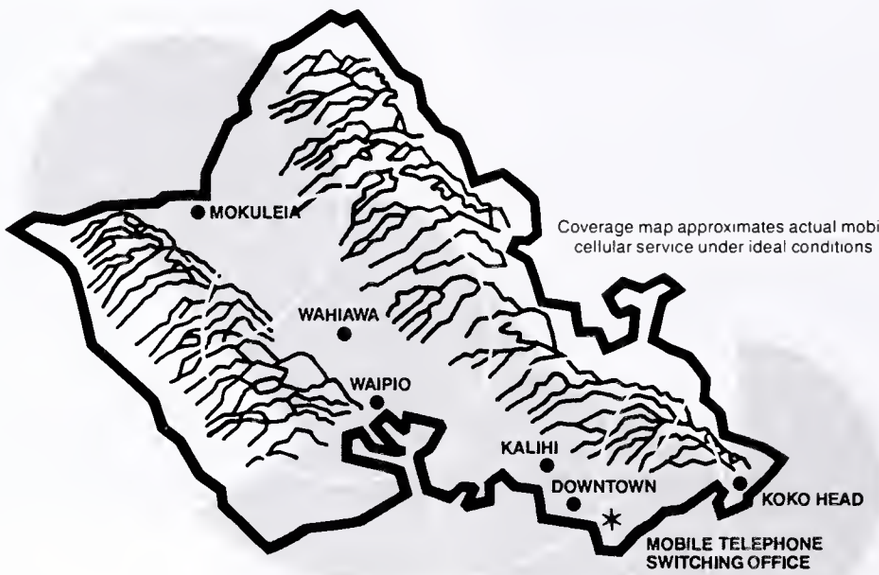

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Learning from Cancer Research

This represents the second Cancer Special Issue of the HAWAII MEDICAL JOURNAL. The first, in October 1984, contained six articles; the current issue is double that number.

The material ranges from epidemiologic services through early detection, into management, chemotheraphy side effects of therapy, psychologic outcomes, and for the first time, the impacts on clinical practice of the local involvement in national clinical trials sponsored by the Hawaii Medical Association.

The depth and breadth of cancer activity and research in our Island state is recovering, and the role of the Hawaii Medical Association in its expansion is commendable.

What take-home messages can be learned? First, early detection, especially via mammography, needs to be incorporated further into health maintenance practices in Hawaii. Second, participation in HMA Clinical Trials can bring the newest, and possibly the best, therapy into your office fast. Finally, the Hawaii Medical Association's Cancer Committee provides a logical focus for effective cooperation between the practitioner, the University of Hawaii, and the National Cancer Institute in Bethesda, Md.

Thomas C. Hall, MD
Special Editor;
Project Manager,
HMA Clinical Trials Office

Self-referral for Breast Cancer

In this issue of the JOURNAL, Fred Gilbert Jr. of the Straub Clinic summarizes in brief "What We Learned from the Breast Cancer Detection Demonstration Project" (BCDDP) — the 10,000-woman screening by mammography and palpation and follow-up over a five-year period ending in 1979.

More or less as a consequence of the results: That 42 percent of the 181 cancers found in that population could not have been detected that early in terms of size of nodule by digital palpation, either on breast self-examination (BSE) or by the woman's physician, Gilbert, whose baby the project was, feels rather strongly that every woman age 40 and older should have much easier access to mammography (mammo) than exists within our society at present. The BCDDP demonstrated that a mammo was much the most sensitive diagnostic tool.

The Hawaii Pacific Division of the American Cancer Society (ACS) Breast Cancer Task Force has asked a subcommittee of three — Ann Catts, chairperson, A.A. Smyser, and Fred Reppun — to consider the matter of "self-referral" by women who want to have a mammo but do not care to go to a physician's office first for financial or other reasons. Gilbert is chairman of the task force.

The subcommittee is in the throes of formulating a recommendation to the task force.

The contention is that if women were allowed by custom or by regulation or by law to refer themselves for the "new" rare-earth screening mammos, there would be a great many more "curable," early breast cancers picked up.

The historical curve of breast cancer survival rates is pretty flat, which is to say that modern surgery, radiotherapy, chemotherapy and hormone therapy not withstanding, the survival rate has not improved significantly the past 50 to 60 years. The apparent reason is that, by the time a breast cancer is palpable, the endpoint has already been predetermined. The ACS' emphasis on BSE education has not done much either, to influence the curve.

The results from the BCDDP have convinced Gilbert that early and more frequent mammos, particularly since with current techniques the mid-breast radiation dose can be reduced to 0.045 mr, or 1/10th of what it used to be, may finally have an effect on that mortality curve.

Logical and theoretical considerations could espouse that concept — that self-referral might make a difference. However, the practical obstacles loom large.

First, the woman 40 years old and older faces the prospect of a cost not usually covered by medical insurance, either private or governmental. From what we have been able to discover in our community, a simple "minimum" screening costs $55 or more; this compares with $110 if the procedure becomes "diagnostic" — wherein a "suspicious" finding must be checked out more extensively before the radiologist can put a determination into writing over his signature.

When she reaches age 50, this woman faces the ACS recommendation that a mammo be done every year. What woman, single or in household, would budget for such an "iffy" purpose? It is to be understood, of course, that a suspicion turns the examination into diagnostic, which then makes it eligible for payment in whole or in part by medical insurance. But, this does not help the underinsured, the non-insured and the poor — the female component of our society perhaps most in need of such screening. One answer might be to have publicly funded screening centers, with self-referral based on a means test, but one can easily visualize objections to that scheme rising from many segments of our "free" society.

Secondly, if a woman were to walk in to a radiology unit, or a radiologist's office, unreferred by her physician, or by any casually named physician, and had a mammo done, to whom should the report go? To her, in that instance, if she has paid for it. An "all normal" report sent to her would be most welcome, but it might give her a false sense of reassurance that might obviate a more careful physical exam by a physician, either then or much later. Neither "specificity" nor "sensitivity" in any medical examination is ever 100 percent!

If the report read simply "not quite normal," panic might ensue and then options opened to quackery, delay, denial, etc. — a veritable Pandora's box of reactions, probably most of them without physician guidance.

Many women have no private medical doctor (PMD), or no regular one; if the report were sent to the MD she has named, neither she nor the MD may follow up; and so on ad infinitum.

Thirdly, how would the radiologist feel about his or her own liability if the report, good or bad, to this person or to that one, to an unknown MD or to one who had never seen the patient and perhaps doesn't want to, was sent out like chaff in the wind?

Fourthly, such a facility or radiologist must perforce ask for cash on the barrelhead from a self-referral, for obvious reasons.

Fifthly, the screening of a breast cancer is not the only physical a woman should undergo during the year that heralds the downhill side of life; her physician has five senses that he can put to good use, and perhaps a sixth sense in terms of overall perceptiveness. Technology is an unreliable seventh sense very often. "If the lab repoort doesn't fit, throw it out!" we say.

And finally, self-referral belies the roll of the physician as a guide to care and healing; the concept of self-referral puts the physician into the role of a slave to technology.

It is said that a major drawback to mammography, as recommended by the ACS, is the physician's antipathy because of: (1) too much radiation; (2) being too expensive; (3) not being that effective, and (4) being unnecessary. Most, if not all, physicians are well aware that the one major and acceptable indication for mammography is a strong family history of breast cancer, during the woman's child-bearing years and after. Most of the above objections are amenable to physician education. This may take some doing!

We can start right here in our own community, the site of that commendable BCDDP of which Hawaii can be proud. The floor is now open for dialogue. Let's hear it from the examining physicians, from the referring physicians, and from the radiologists, please!

Are you, or are you not, in favor of self-referral for mammography by women in that certain age group for whom the American Cancer Society has such strong recommendations?

J.I. Frederick Reppun, MD
Editor

Cancer Risk on the Island of Hawaii, 1973-1982

Loïc LeMarchand, MD, MPH; Michael Davidson, MD, MPH; Laurence N. Kolonel, MD, PhD; Honolulu

Cancer risks in the Caucasian, Japanese, Hawaiian/part-Hawaiian, and Filipino populations of the island of Hawaii were compared with the corresponding risks for the state as a whole. The analysis used standardized incidence ratios based on the state incidence rates for 1973-82. For Caucasians and Hawaiians, the risks for the major cancer sites were generally lower on the Big Island, while for Japanese and Filipinos, they were more comparable to those for the state overall. These results are consistent with past urban/rural comparisons of cancer risks in these ethnic groups in other settings. The only elevated cancer risk on the Big Island was that of cervical cancer in Caucasian women. Our data suggest that Pap smear screening should be encouraged on the Big Island, particularly among Caucasian women aged 18-40.

Cancer occurrence in Hawaii has been well-documented in the recent past, primarily from the data collected by the statewide, population-based Hawaii Tumor Registry.[1, 2] The variations in cancer incidence identified in Hawaii's multi-ethnic population have generated much research on the environmental factors associated with cancer.[3] However, the descriptive data published to date have concerned the entire state, and chiefly reflect cancer patterns among the residents of the island of Oahu, who represent 80 percent of the state's population. Little information has been available regarding cancer occurrence on the other, less-populated islands of Hawaii. Although the populations living on these islands share common ethnic and cultural backgrounds, they differ somewhat in their economic activities, degree of urbanization and lifestyle; therefore, they may also differ in their cancer risk.

Studies of cancer incidence in small, but well-defined and relatively stable communities, possibly exposed to different environmental carcinogens, may sometimes provide etiologic clues. They also are useful in assessing health care needs and in planning cancer control programs. The island of Hawaii, the largest and second-most-highly populated of the Hawaiian Islands, offered an opportunity for such a study.

This report presents a comparison of the cancer risks of the four major ethnic groups living on the island of Hawaii, also called the "Big Island," with those of their counterparts in the entire population of the state of Hawaii. The small size of the populations of the other islands did not allow for similar race-specific comparisons.

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Methods

The data for this study were those collected by the Hawaii Tumor Registry (HTR), which was established by the Hawaii Medical Association in 1960 and became a member of the Surveillance, Epidemiology and End Results (SEER) Program of the National Cancer Institute in 1973.

At that time, a rigorous, ongoing quality control program was introduced which has assured a virtually complete case-ascertainment throughout the state. Less than 1 percent of the cases are identified from death certificates only. More than 94 percent of the tumors reported to the registry are microscopically confirmed.

Site and histologic diagnosis are classified by the HTR staff according to the International Classification of Diseases for Oncology (ICD-0).[4]

This study included invasive as well as *in-situ* malignancies of the following sites: oral cavity and pharynx (ICD-0 140-146, 148, 149); esophagus (ICD-0 150); stomach (ICD-0 151); colon (ICD-0 153); rectum (ICD-0 154); liver and biliary tract (ICD-0 155, 156); pancreas (ICD-0 157); larynx (ICD-0 161); trachea, bronchus, and lung (ICD-0 162); hematopoietic and reticuloendothelial system (ICD-0 169); skin (ICD-0 173); female breast (ICD-0 174); cervix uteri (ICD-0 180); corpus uteri (ICD-0 182); ovary (ICD-0 183); prostate (ICD-0 185); bladder (ICD-0 188); kidney (ICD-0 189); thyroid (ICD-0 193); lymph nodes (ICD-0 196).

Since the population of the Big Island is relatively small when considered in several ethnic and sex subcategories (Table 1), it would yield rather unstable rates if those rates were based on a short period of time. Hence, in this study we considered all the new cancer cases (i.e., "observed cases") diagnosed among Big Island residents during the 10-year period from 1973 to 1982.

The number of cases expected to have occurred if cancer risks on the island of Hawaii were similar to those in the state overall were computed with the site-race-sex-specific incidence rates for the state of Hawaii based on HTR data for the same time period. These rates were applied to estimates of the size of the respective subgroups of Big Island residents for the midpoint (1977) of the study period.

The population figures were obtained from the Health Surveillance Program (HSP) of the Hawaii State Department of Health, which every year randomly samples approximately 2 percent of each island's population.

Expected numbers of cases in each category of age, sex and ethnicity were summed to give an overall expected number, which was compared to the observed number of cases by taking the ratio observed/expected and multiplying it by 100 to obtain the standardized incidence ratio (SIR). The statistical significance of this ratio was assessed under the assumption of a Poisson distribution.[5]

The patients classified themselves on ethnicity at time of hospitalization, whereas the populations (as estimated from the HSP samples) were classified by ethnicity based on parentage. This difference in method of classification is unlikely to have resulted in any significant bias, since more than 90 percent of the state's population over age 45 are ethnically pure, after exclusion of the Hawaiians. The Caucasian, Japanese, and Filipino categories were limited to persons who reported themselves to be of pure origin, but the Hawaiians and part-Hawaiians were considered together in a single category. Unfortunately, the Chinese, Koreans, and Samoans were too few in numbers to be considered as separate groups and thus were omitted from the analysis.

TABLE 1
Age, Sex and Ethnic Distribution of the Population of the Island of Hawaii, 1977

Age groups in years	MALE					FEMALE				
	Caucasian	Japanese	Hawaiian	Filipino	Other	Caucasian	Japanese	Hawaiian	Filipino	Other
0 - 9	918	788	3,221	314	1,565	802	1,121	2,225	340	1,199
10 - 19	1,039	1,879	3,450	284	995	1,027	1,525	3,296	358	1,120
20 - 29	1,682	1,383	1,718	629	802	1,743	1,284	1,788	637	830
30 - 39	1,260	1,010	1,150	301	466	94	1,093	1,196	334	396
40 - 49	988	1,279	786	356	452	1,116	1,856	1,102	254	461
50 - 59	1,307	1,926	520	694	454	1,317	2,112	581	320	126
60+	1,933	2,077	916	1,015	346	1,556	2,024	1,029	202	91
Total	9,127	10,272	11,761	3,593	5,080	8,510	11,015	11,217	2,445	4,223

Since our original objective was to identify interisland differences in cancer risk, ideally we should have based our comparisons for the Big Island on the cancer rates for just the remaining islands or possibly Oahu alone. Instead, we chose as reference the rates for the entire state, because they have been published and compared to the U.S. rates.[1, 6] Since the Big Island population represents less than 10 percent of the total for the state, its inclusion in the computation of the expected values was likely to have produced but a small effect on our results, and to have obscured rather than created significant SIRs. Furthermore, since 80 percent of the population of the state resides on Oahu, any comparison of the Big Island with the state as a whole is essentially a comparison with Oahu.

Results

The SIRs for the Big Island residents of Caucasian, Japanese, Hawaiian, and Filipino ancestry are presented in Table 2. A SIR of 100.0 for a sex/race category would indicate that this particular group of Big Island residents had a cancer risk similar to that of the corresponding population group in the state.

Caucasians and Hawaiians of both sexes were at significantly lower risk for developing cancers of all sites combined than their counterparts in the state. In contrast, cancer risks for all sites were significantly higher on the Big Island for Japanese males and Filipino males and females.

The site-specific comparisons for Caucasian males showed lower risks on the Big Island for cancers of the larynx, lung, pancreas, prostate, kidney, and skin (melanoma). Hawaiian males had fewer cancers of the oral cavity, esophagus, pancreas, and lung; while Japanese males were at greater risk for rectal cancer, and Filipino males at greater risk for cancers of the stomach and oral cavity (six cases of tongue cancer whereas only two were expected).

Caucasian women were at lower risk on the Big Island for lung, colon, breast, uterus, and ovarian cancers. Hawaiian women had fewer breast and uterus cancers than expected. Cervical cancer rates were increased on the Big Island for women of all ethnic groups examined, but significantly so only in Caucasians (more than 2.5 times the statewide rate). For most sites, female cases of Filipino origin were too few to allow for meaningful comparisons.

An examination of cervical cancer occurrence in individual census tracts revealed that 12 cases were diagnosed over a recent two-year period among young Caucasian women from one particular census tract, whereas 0.3 were expected. However, this apparent cluster does not explain by itself the increased cervical cancer rate in Big Island Caucasian residents, since after exclusion of these 12 cases, the rate was still higher than expected, especially for Caucasian women between ages 18 and 40. A time-trend analysis also showed that this rate was already significantly increased during the first half — though less so than during the second half — of the study period.

Discussion

The reliability of these results depends on the validity of the Big Island population estimates and on the accuracy of the residency information reported in the HTR. We have few reasons to question the validity of the HSP population estimates used in this study since they were developed from samples of reasonable sizes using appropriate statistical methods.

Potentially more serious is the problem of misclassification errors on island of residence. The registry obtains this information from the addresses of the patient and referring physician, as reported on the hospital chart of first admission. Yet, it is conceivable that a number of Big Island residents may have, on their own initiative, directly referred themselves to a hospital on Oahu and reported the local address of some relatives, thereby being mistakenly classified as Oahu residents.

In this eventuality, the SIRs for Big Island residents would have been artifactually reduced, and possibly more in certain races than others. However, if such misclassification had been extensive, we would have obtained significantly small SIRs for many more sites and in a more consistent pattern among sexes than we actually observed in this study.

Thus, misclassification on residency seems unlikely to account for the differences in risk observed in this study.

Although some of these risk comparisons were based on relatively small number of cases, a certain consistency arises from our data. The cancer sites for which we observed a decreased risk in certain ethnic-sex subgroups on the Big Island are ones usually highly correlated in inter- and intracountry comparisons, or in secular trend analyses. Thus, cancers of the breast, ovary, endometrium, and colon are known to covary among geographic areas,[7, 8] as do cancer sites most strongly related to cigarette smoking (oral, cavity, pharynx, larynx, and lung).

Our findings in Caucasians also agree with the general observation that cancer risk for U.S. whites is usually lower in rural than in urbanized areas. The island of Hawaii, despite the recent development of certain of its coastal areas for the tourism industry, has remained the most rural of the main Hawaiian Islands.[9]

The decreased risks observed on the Big Island in Caucasian males for cancers of the pancreas, skin, and kidney, and in Caucasian females for cancers of the colon, breast, ovary, and endometrium are consistent with the results of past urban-rural comparisons in this ethnic group,[10] although a more consistent pattern among sexes might have been expected.

The observation of a decreased risk on the Big Island for prostate cancer was somewhat unexpected, since no urban-rural gradient has been previously reported in U.S. whites. Also unexpected was the absence of risk reduction for bladder cancer, in view of the reduced risks for the other smoking-related cancers. One might consider the possibility that different environmental carcinogens are of primary importance for these two cancer sites on the islands of Oahu and Hawaii.

We also observed that Hawaiians, who, among the state's population, have

TABLE 2
SIR by cancer site, sex and race for residents of the Island of Hawaii, 1973-1982

SITE in years	MALE				FEMALE			
	Caucasian	Japanese	Hawaiian	Filipino	Caucasian	Japanese	Hawaiian	Filipino
All sites	71.3[b]	116.5[b]	63.1[b]	127.8[b]	82.6[b]	105.0	79.3[b]	168.5[b]
Oral cavity-pharynx	67.3	79.0	25.3	229.1[b]	55.6	104.2	*	*
Esophagus	166.7	164.2	37.5[a]	181.8	*	*	*	*
Stomach	93.6	100.9	84.8	191.2[a]	129.3	116.0	99.4	*
Colon	83.8	119.5	54.6	118.8	59.2[b]	105.1	72.7	*
Rectum	79.0	140.8[a]	70.2	140.0	63.8	85.3	67.9	*
Liver-Biliary	42.5	129.4	65.9	108.6	112.9	133.9	85.7	*
Pancreas	48.5[a]	151.5	36.2[b]	181.8	76.2	106.8	89.5	*
Larynx	24.5[b]	178.1	36.1	*	*	*	*	*
Lung	72.3[b]	112.7	45.5[b]	107.3	41.1[b]	100.4	70.2	*
Hemo-RE system	103.4	142.3	95.8	106.7	74.9	107.5	94.9	*
Skin (melanoma)	46.6[b]	*	*	*	120.2	*	*	*
Breast	—	—	—	—	76.5[b]	97.8	75.3[b]	131.0
Cervix	—	—	—	—	260.6[b]	127.6	111.5	*
Corpus uteri	—	—	—	—	73.6[b]	84.5	41.8[b]	*
Ovary	—	—	—	—	50.5[a]	112.8	115.0	*
Prostate	61.0[b]	110.7	76.4	119.0	—	—	—	—
Bladder	71.3	125.7	119.4	163.6	72.6	93.0	*	*
Kidney	17.5[b]	93.2	71.6	*	31.0	*	*	*
Thyroid	50.8	45.8	38.9	*	68.4	70.3	117.2	160.0
Lymph Nodes	120.1	70.6	90.0	107.7	78.2	152.9	100.0	*

* expected cases fewer than 5
[a] $p < .05$
[b] $p > .01$

the highest overall cancer incidence,[1] had the greatest overall risk reduction on the Big Island. This may be related to the fact that on the island of Hawaii, Hawaiians have maintained a somewhat more traditional lifestyle — especially in terms of diet — because of the greater availability of land and the existence of rich fishing grounds.

The risk pattern observed on the Big Island for the Japanese group *(i.e.* little variation from the state as a whole) is consistent with the reported lack of substantial rural/urban differences in cancer incidence in other Oriental populations.[11] (The increased risk of rectal cancer in males noted in this study might be due merely to chance.)

The differences in cancer risk observed in Filipinos may only reflect premigration exposures, since the great majority of Filipinos in Hawaii are first-generation migrants. In this regard, it is interesting to note that the cancer sites (stomach and tongue) for which they have an increased risk on the Big Island are also more common in rural and less-educated populations of the Philippines,[12, 13] among whom chewing of betel nut is common.

Finally, our finding of a high incidence of cervical cancer among Caucasian women on the Big Island was unexpected since the statewide incidence rates for this cancer have been shown to be low and on the decline,[2] as in other parts of the United States.[14]

The single census tract with a marked increase in cervical cancer rates over a two-year period was the focus of a substantial immigration of young adults over the last decade.

Despite the transmissible characteristics of this disease, these cases may have no relationship with one another and may reflect only the profile of this group of immigrants. This and other explanations for the apparent cluster are currently under investigation.

The observation that Caucasian cervical cancer rates are increased on the Big Island independent of this cluster, and independent of the effects of a community-oriented screening program conducted in 1976-79 by the Hawaii State Department of Health and the American Cancer Society (only two cases, aged 63 and 64, were diagnosed on the Big Island) suggests that screening by Pap smear should be encouraged on this island, particularly among Caucasian women aged 18-40.

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Community Practice and Cancer Clinical Trials: I. Relevance of Creatinine Clearances

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The development and application of an effective, new clinical test proceeds through three stages. First, all potentially abnormal patients are studied to evaluate the validity, reliability, and sensitivity of the test. During this research phase, the test is of uncertain value clinically.

Second, three groups of test subjects emerge after analysis of the initial results: one of which is always positive, and thus of no selective differential value; a second in which is always negative, and thus adds nothing to the identification of that group, and an intermediate group in which the test may be negative or positive in specific members of the group, and thus the test may provide help in selective management of patients.

Third, after this evolution, for this subgroup, the test is of potential clinical value. If such a group is not found, the test will have no clinical utility, and will be dropped.

Introduction

For the community practitioner, many tests are available, some of which have not fully evolved in the aforementioned fashion before they are marketed, so that it may be difficult for him/her to determine if the test only confirms a status already known from other examinations, or whether the test will be of help in adding information of management value. The result is commonly overuse of tests, with resulting excess costs. In the era of the DRGs, omitting unneeded tests may reduce costs while not endangering appropriate clinical decision-making.

Cooperative groups doing clinical trials have evolved in a time of substantial federal financial support. In addition, this format provides an opportunity to make cross correlations between tests and clinical status on large groups of patients. This often involves mid-course changes in therapy depending upon clinical test results.

The trials proceed according to fixed protocols which must incorporate, at least initially, multiple related measurements of bone marrow and other organ functions. Very few of these large data bases have been examined to see whether some tests can be omitted because they do not add specific information relevant to decision-making. However, they may contain clinical data which may contribute to this in community practice.

Methods

It was necessary to evaluate renal function prior to patient entry on GITSG 8380, since the protocol contained potentially nephrotoxic agents. A serum creatinine and creatinine clearance were required prior to entry on treatment. The creatinine clearance required a timed, 24-hour urine collection, plus a serum creatinine. Because of the cost in dollars and in patient and medical staff time, it would be desirable to minimize the frequency of creatinine clearances.

Based upon the concepts described above, a retrospective survey of the study populations might be expected to delineate a group in which the creatinine clearance would never be needed since it was always normal as predicted by the serum creatinine. There would also be another group in which it was never needed because it was always abnormal and so predicted by the serum creatinine.

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In addition, there would be a final group in which, since an intermediate serum creatinine level could not predict whether the clearance would be normal, a creatinine clearance was justified because it would add new information that would then be useful in the clinical judgment of patient eligibility for protocol treatment.

One hundred eighty-eight patients randomized to GI 8380 treatment arms, had both creatinine clearance and serum creatinine data available. The clearance ranged from 10 to 222 ml/minute and serum creatinine ranged from 0.1 to 2.1 mgm per 100 ml. The relationships between the two variables was characterized by simple statistical analysis, correlations, plots, and contingency tables. Omitted from these calculations were any patients with previously diagnosed poor renal function who never reached the point of eligibility. However, we do not feel that this group's absence affects the analysis or conclusions.

Results

The usual Pearson correlation between the two values was obtained as -0.198. Probably due to the large number of patients, the p-value for a test of whether this value equals zero was an impressive 0.007, indicating a definite relationship. The small magnitude may indicate limited usefulness.

A scatter plot was produced (Figure 1) which shows that low serum creatinine is associated with high creatinine clearances and vice versa. The wide middle band of values between serum creatinines of 0.7 and 1.5 is associated with a negative slope.

It is also of importance to observe how often a serum creatinine above the value of 1.0 mgm/100 ml is associated with a low (below or equal to 60 ml/minute) clearance. The data distribution is shown on Table 1.

Thus, use of the traditional "normal" creatinine upper limit as cut-off does not permit one to exclude patients with clinically important renal impairments. After application to these data of a one-tailed test to evaluate whether high serum levels are associated with low clearance levels, the Fisher's exact test p-value is 0.12.

This demonstrates only a tendency for the association to be in the predicted direction, but not enough safely to substitute serum creatinine for clearance. However if one uses 0.7 as low value and 1.6 as the high cut-off, all but one patient with the lower value had adequate creatinine clearances, and no patient at or above the higher serum creatinine value had a creatinine clearance of 50 ml/minute.

These two outlier groups represent 15 percent of the total. More detailed analysis of these patients might add other clues such as age, sex, and weight which might further refine these findings.

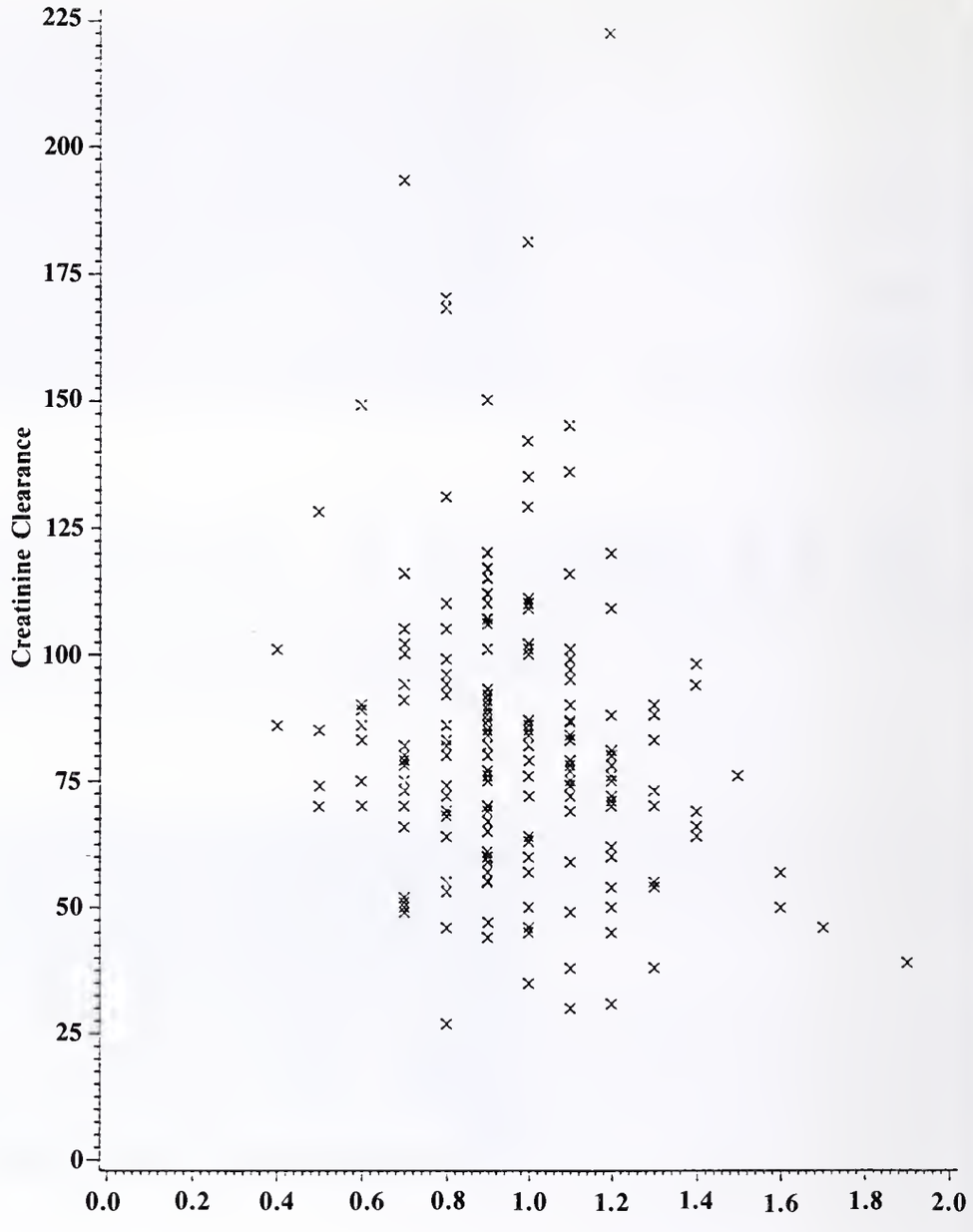

Figure 1

Scatter plot showing the relationship between serum creatinine and creatinine clearance in study patients.

TABLE 1

Creatinine Clearance	Serum Creatinine ≤1.0 mgm/100 ml	1.0 mgm/100 ml	TOTAL
≤ 60 ml/minute	21	16	37
> 60 ml/minute	104	47	151
TOTAL	125	63	188

Summary

Study of a group of patients undergoing a cooperative clinical trial that requires adequate renal function showed that 15 percent of patients could be classified as having adequate or inadequate creatinine clearances on the basis of initial serum creatinines.

This suggests that substantial cost savings could be made by omitting creatinine clearances in patients with serum creatinine equal to or more than 1.6 mgm or equal to or less than 0.7 mgm.

Further studies refining these concepts to include age, habitus, and sex may be of value.

Community Practice and Cancer Clinical Trials: II. Detection of Recurrences in Rectal Cancer

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Several studies have suggested that improvements in time to recurrent or metastatic disease, and possibly in overall life span, can be obtained by patients with rectal cancer who receive adjuvant radiation therapy plus chemotherapy.[1, 2]

Introduction

In clinical trials, to determine recurrence is critically important. Ree and others [3] have reported that local recurrence in non-treated patients occurred in 24 percent of patients, were associated with high mortality, and were diagnosed by local masses 75 percent, and local pain 60 percent of the time. Following adjuvant therapy, local recurrences might have been less apparent, and appropriate methods of diagnosis might be changed accordingly.

GITSG 7175 was a study that followed 202 such patients, and required that colonoscopy be done to search for anastomotic recurrences, as well as regular, local physical examinations and screening, chemistries and CBAs. One hypothesis was that because of effective therapy, anastomotic recurrences would decrease and expensive proctosigmoidoscopies or colonoscopies would be shown to be of less use in follow-up of treated patients.

Methods and Results

Two hundred and two patients were entered. Sixty-four of these patients had anterior resections; these were supposed to have 66 procto-sigmoidoscopies performed during 2½ years of observation. However, only 38 proctosigmoidoscopies were done, and only five anastomotic recurrences were noted. Of that number, three had simultaneously diagnosed other locoregional disease.

Overall there were 42 locoregional recurrences. These were distributed as follows: perineal — nine, uterovaginal — seven, sacrococcygeal — five, prostate and/or bladder — five, miscellaneous — 11, and anastomotic — five. All patients with anastomotic recurrences were dead within eight to 26 months regardless of therapy, and only three of the anastomotic recurrences were technically resectable. A follow-up study of patients from GITSG with colon primaries confirms these observations.[4]

Conclusions

1—The recurrence pattern of locally treated rectal cancer is not usually locoregional, but distant.

2—Regional recurrences rarely occur anastomotically, and when they do, they are associated with other diagnosable regional recurrences.

3—Procto-sigmoidoscopy does not add significantly to physical exam and monitoring of chemistries in such patients.

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Community Practice and Cancer Clinical Trials: III. Value of Platelet and Differential Counts

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Controlled clinical trials attempt to relate new therapies to response and toxicity. They often start with data collected previously from a small group of initially studied Phase II patients, but without sufficient numbers to predict with precision what toxicities will result and what benefits may accrue to the patient.

Comprehensive Phase III studies characteristically collect large numbers of data upon which to evaluate response and toxicity. By the end of a Phase III study it should be possible to determine which organ systems showed untoward effects of treatment, and which tests contributed meaningfully to clinical decision-making.

Methods

Two studies of the Gastrointestinal Study Group (GITSG) were examined in respect to the relative clinical contributions made by blood counts. In EST 7180 there was a requirement to escalate 5-Fluorouracil doses at predetermined times, provided there were no contraindications demonstrated by the patient's blood counts. In EST 8376 decreases in chemotherapy doses at stated intervals might have occurred because of prior drug effects resulting in lowered blood counts.

Results

Protocol 7180: This was a regimen in which adjuvant chemotherapy with radiation therapy was given after surgery. Thereafter, regular chemotherapy was given according to a schedule in which patients without marrow depression received increasing doses of 5-Fluorouracil. Eighteen patients were scheduled to have their doses of 5-Fluorouracil increased from 350 mgm/M² to 500 mgm/m². Seven did not complete the escalation because of non-hematologic reasons, and three because their white cell counts — but not platelet counts — were too low.

Following completion of escalation of 5-Flurouracil, four of the eight whose treatment escalated had to have their doses of 5-Fluorouracil decreased; all of these were due to white cell count depressions. In many instances there were also abnormalities in platelet counts; however, there was no instance in which dose escalation or reduction was the result of platelet count changes alone.

In protocol GITSG 8376, a comparison was made of 5-Fluorouracil plus Adriamycin (FA), versus the same two drugs plus Methyl CCNU (FAMe). Forty patients were entered and analyzed: 20 on FA, 20 on FAMe, six of these 40 patients had to have dose reductions because of falling hematologic values. Once again, in each instance, the white count fell, with some accompanying falls in platelet counts, but the platelet count never fell alone to a value requiring dose modifications when white cells had not also fallen.

Discussion

In all of the above instances, the white cell counts contributed all the hematologic information needed for decision-making, as to raising or lowering drug doses. The white cell count was primary for decision-making even when the drugs used were those such as Mitomycin-C which can give rise to selective thrombocytopenia.

The platelet count is often done manually and hence may be an expensive portion of the hematologic examination. The numbers of patients and uniform treatments involved in these cancer clinical trials provided data which suggest that platelet counts could be omitted from treatment regimens involving 5-Fluorouracil and Methyl CCNU following radiation, as well as those which include 5-Fluorouracil plus Adriamycin and Methyl CCNU. Li, Danahy, and Gelman,[1] have previously reported that the differential count is rarely useful in managing cancer therapy, however, their conclusion was based upon total counts above 5,000.

Our data relate to raising and lowering doses for total counts at any levels. Thus, it appears that the use of platelet counts in clinical management may not be important, and white cell counts or ganulocyte counts may be enough. Our data do not describe hematologic neoplasms, or pediatric tumors, and should not be applied to these groups.

Differing conclusions may be obtained from analyses of different drugs. However, substantial savings might be made in the community-practice setting by applying these cooperative group-derived data. A test which duplicates the decision-making information of another simple test, may be considered clinically to be a surrogate and, therefore, can be omitted in order to cut costs.

Summary

1—In studies involving 5-Fluorouracil and radiation, when the total white count did not permit dose escalation, or required decreased doses, the platelet count never affected this decision.

2—When downward decrements in doses of 5-Fluorouracil, Methyl CCNU and Adriamycin were required, white blood cell counts were more relevant to clinical decisions than were platelet counts.

3—The examination of cooperative group data bases may well contain other examples of surrogate lab tests which, when omitted, might decrease the cost of tests used in monitoring patient care.

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Community Practice and Cancer Clinical Trials: IV. Relationship Between Early Toxicity and Treatment Outcomes in GI Cancer Patients

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In patients receiving chemotherapy for cancer, one of us (TCH) has hypothesized that unexpected and severe, early, toxic reactions to chemotherapy may be associated with more profound responses, prolonged disease-free intervals, or lengthened survivals because of pharmacogenetic sensitivity, which would be shared by tumor and host tissues. Such an effect might also be measured in terms of subject proportions dead or recurrent at specific times after the toxicity occurred.

We studied this issue by examining data gathered by the Gastrointestinal Tumor Study Group (GITSG), a cooperative group of the National Cancer Institute, and relating unexpected severe toxicity to response, as measured by tumor regressions and time intervals to recurrence and death.

Methods

Five studies from GITSG were considered. They were:

1—GI 6175: A prospective, randomized Phase III trial which was designed to compare chemotherapy, immunotherapy, and chemotherapy plus immunotherapy with a surgery-only control arm in patients who had received curative resections for colon cancer. Since measurable disease was not involved, times to relapse and survival were taken as potentially related to degree of anti-tumor and host toxicity effects. This was a study of many patients and toxicities.

2—GI 8376: A prospective randomized trial designed to determine the relative effectiveness of three chemotherapy combinations in patients with unresectable gastric carcinoma. Measurable disease was not usually present; "disease-free interval" (time to relapse), and survival, were the primary end points.

3—GI 8380: A prospective randomized clinical trial designed to compare the relative efficacy of three chemotherapy combinations in patients with advanced gastric cancer. Effects on measurable disease were possible here.

4—GI 6380: A Phase II study of the frequency and duration of tumor response to Methyl-CCNU, Vincristine, 5-Fluorouracil, Streptozotocin, in patients with measurable, histologically confirmed metastatic or recurrent adenocarcinoma of the colon or rectum. In this trial, response in measurable disease sites could be analyzed.

5—GI 9376: A set of Phase II clinical trials designed to evaluate the anti-tumor activity of a number of single new drugs and drug combinations in patients with advanced pancreatic carcinoma. Twelve single drugs or combinations were included in the trial.

In GI 6175, comparisons were undertaken to determine to what extent early toxicities were of benefit with respect to length of survival and length of disease-free interval. As it was theoretically of importance to determine whether the early toxicities were associated with significantly *increased* anti-tumor responses, tests of these hypotheses were constructed.

Since an increase in the length of the survival or disease-free interval would ordinarily imply lower death and recurrence proportions in the time periods studied, these associations were evaluated by one-sided hypothesis tests. Unexpected severe toxicity might result in an increased number of early deaths before opportunity to measure response, disease-free interval or survival, and those who survived might well-demonstrate responsiveness and prolongation of the "disease-free" and survival intervals.

Toxicities of interest were the severe hematologic ones, or the life-threatening or fatal toxicities of any type. For the purposes of this study, all of these toxicities will be called "severe" toxicities. Toxicities in GI 6175 were considered to have occurred early if they occurred within 30 days of start of therapy. All analyses of 6175 data were based on treated patients; patients in the control arm received no therapy and thus, by definition, could not experience treatment-related toxicity.

As well, one set of analyses compared outcomes of interest between patients experiencing *early, severe* toxicities and those with *later or no severe* toxicity, while another set compare patients with *early,* as opposed to *late* toxicity. This latter comparison excluded all patients from analysis who had not experienced "severe" toxicities, as defined above.

In addition, lengths of intervals in living patients were analyzed separately from lengths of intervals of deceased patients, in order to allow distinction between follow-up time (for living patients) and survival time (for dead patients).

Among living patients of GI 6175, follow-up is determined exclusively by the length of time that the patient has been in the study; thus, recently entered patients will have shorter follow-ups. This makes it necessary to assume that early and late toxicities occurred independently of whether the patient entered the study recently or further back in time.

Early severe toxicity was also analyzed as a prognostic factor for survival or disease-free survival by employing Breslow's modification to Cox's regression model.[1] Analyses combined living and dead patients for survival and examined living and dead patients separately, as well as combined, for disease-free survival.

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The patients placed into GI 6380, 8380, and 9376 died in quick succession. Because of this, any examination of effect of early toxicity would have needed to take into account the rapidly decreasing numbers of patients likely to develop toxicity. As was the case in GI 6175, it was decided only to identify toxicities which presented within 30 days after the treatment start date for these four studies, and those toxicities considered "early, severe" for the analysis, and grade 3: severe or worse hematologic toxicities, or grade 4 or 5: fatal toxicities of any sort.

Since the hypothesis related to *improvements* in response or survival, the hypothesis posed was tested using a one-sided confidence interval. Also, the comparisons were weighed between patients with early, severe toxicity, and the remainder. Comparing patients with early versus late "severe" toxicity would have been improper in this situation because only those patients who live long enough can experience later toxicity; hence, they will most probably have a longer median survival. Also, late toxicity might be less related to pharmacogenetic factors than to cumulative effects of drugs and tumor on the host. Since virtually all the patients in these studies have died, it was not appropriate to examine the dead and living patients separately. Instead, all were included in the analyses.

Results

The results of analyses varied by study; therefore, they were being presented separately.

A. In GI 6175, whether just those patients with severe toxicities are considered or whether all treated patients are considered, comparing patients with early, severe toxicities to the others in the evaluation demonstrated no difference with respect to recurrence proportions or time to recurrence noted ($p. > .5$). Examining proportions of those GI 6175 patients who have died reveals that there was no death-rate difference between those with early, severe toxicity and the rest.

However, when only looking at those with severe toxicities, 13 of 27 patients with toxicities noted within 30 days had died, while 31 of 88 late toxicity patients died ($p. = .16$, Fisher's exact test, one-tail). This indicates a slight tendency for the patients with early, severe toxicity to have had a greater proportion dead than the patients with late toxicity. This result is not considered significant, but neither is it inconsistent with what the biological model would expect to demonstrate. Had a two-tailed test been conducted, not having any expectation about the direction of any difference, this finding would have been of little importance.

Among living patients, early, severe toxicities were associated with follow-up times in the following ways.

1—10/14 patients with early toxicity had follow-up times longer than median follow-up for all treated patients, compared with 111/227 with longer than median to follow-up among all other patients ($p = .086$ Fisher's exact test, one-tail). (Disease-free: 9/14, $p = .210$).

2—10/14 patients with early toxicity had follow-up times longer than the median follow-up among all treated patients with *severe* toxicity ($p = .075$, Fisher's exact test, one-tail). (Disease-free: 11/16, $p = .202$).

Of those who died, early, severe toxicities could not be associated with survival times in a meaningful way. When the living and dead patients were combined into a single analysis for each interval length considered, no significant differences appeared between the early, late or no severe toxicities. Examining the impact of early, severe toxicity on prognosis in disease-free survival, or survival as a whole, also revealed no significant effect, regardless of how the data were combined or separated.

B. In GI 8376, early, severe toxicity was associated with follow-up times in the following way: 24/51 patients with early, severe toxicity had follow-up times longer than median follow-up among all other patients ($p > .25$, Fisher's exact test, one-tail). (Disease-free: 27/51 vs. 89/181, $p. > .25$) Survival curves for the two groups were constructed. The curves were generally quite similar in appearance. The most noteworthy difference occurs among the patients who died within the first 30 days. Only one of 14 patients who died within the first 30 days had early, severe toxicity. (Table 1)

Thus, there is some small, initial, protective effect of the toxicity, but it disappears quite rapidly and has no influence on long-term survival.

Early, severe toxicity was also analyzed as a prognostic factor for disease-free survival (by employing Breslow's modification to Cox's regression model). Using models both adjusted and unadjusted for the effects of different treatments, early toxicity was not a significant prognostic factor.

As large numbers (52 of 232) of patients in GI 8376 had measurable disease, it was feasible to examine the impact which early, severe toxicity had on response proportions. Among the 52 patients, the responses were distributed as in Table 2. (Using the Fisher's exact test, $p = 0.1$, one-sided.)

While this table, showing that 4/13 with early toxicity responded but only 4/39 among the others responded, demonstrated that those with early, severe toxicity were more likely to respond than the other patients, it may not be definitely so, primarily because the total of eight responses is a very small number.

C. GI 8380 contained sufficient information to evaluate 60 patients for measurable response. Using the criteria stated for severe toxicity, the results from this study are as in Table 3. The association between response and early, severe toxicity was not significant ($p = 0.37$, Fisher's one-sided.)

As both studies dealt with the same disease site and stage, it was permissible to combine results from both studies in order to determine the effect. When considering the pooled data of these two studies (6/28 with early, severe toxicity responded as opposed to 7/84 others), the association may be considered significant ($p = .067$, Fisher's exact text, one-sided).

The fact that the combination of the two studies is virtually significant, whereas neither study alone is, points to the lack of adequate sample size when each study is analyzed individually. The enhanced significance also provides evidence that patients with advanced gastric carcinoma, with early, severe toxicity are more likely to have tumor responses.

D. GI 6380 colorectal patients were analyzed with findings shown in Table 4. Evaluating this table, using Fisher's exact test, demonstrates a moderately high, but non-significant level of association ($p = 0.11$, one-tail). Again, had there been a greater number of patients available, with responses distributed in the same manner, the effect would likely have been significant.

E. Patients in GI 9376 had advanced pancreatic carcinoma with a worse survival outlook than those in GI 8376, 8380, or 6380. When patients were classified into categories depending on their response outcome and the presence or absence of early, severe toxicity, as defined for the other studies, the results were as shown in Table 5.

The data are so sparse that calculation of exact p-values is inadvisable. Notwithstanding this, it is clear that the responders are strongly from the group without early, severe toxicity.

The combination of results from all four studies may be an appropriate measure of the overall association, resulting in the following, statistically insignificant ($p = 0.27$, Fisher's exact, one-tail) Table 6. However, since this table includes the GI 9376 findings, which are contrary to the hypothesis, the p-value merely results from two opposite effects noted.

Discussion

Adjuvant Chemotherapy. After examining the results and bearing in mind the methodologies employed, the following conclusions present themselves from GI 6175, the adjuvant disease study:

1—Because the overall number of patients with early toxicity is small, the shift of one or two patient's survival times to the other side of the median, for example, could greatly alter the impression of how survival is related to early toxicity. Also, follow-up times need to be

TABLE 1

		Early, Severe Toxicity	All Others	Total
Died Within	Yes	1	13	14
30 Days	No	50	168	218

TABLE 2

	Early, Severe Toxicity	All Others	Total
Response	4	4	8
No Response	9	35	44
	13	39	52

TABLE 3

	Early, Severe Toxicity	All Others	Total
Response	2	3	5
No Response	13	45	60
	15	45	60

TABLE 4

	Early, Severe Toxicity	All Others	Total
Response	3	1	4
No Response	11	25	36
	14	26	40

TABLE 5

	Early, Severe Toxicity	All Others	Total
Response	1	26	27
No Response	50	278	328
	51	304	355

TABLE 6

	Early, Severe Toxicity	All Others	Total
Response	10	34	44
No Response	83	380	463
	93	414	507

analyzed in view of the staggered entry into the study. An adjuvant study may not be appropriate for examination of a hypothesis dealing with drug effects, since acute anti-tumor changes cannot be measured.

2—Early toxicity is not clearly of consequence in determining whether early recurrence will take place, but is somewhat associated with (i.e., not significantly, but in the direction of) a greater proportion of deaths during the studied period of time. This finding is anticipated, following unexpected and severe toxicity, and can make the hypothesis hard to analyze.

3—In the case of surviving patients, appearance of severe/early toxicity is weakly associated with having longer than median-observable follow-up and disease-free interval.

Advanced Disease Chemotherapy. In GI 8376, the patients with severe toxicity did not display a significant increase in median survival or disease-free survival. There was a modest effect on tumor response, however. An effect on tumor response was not present in GI 380, but when both gastric studies are considered together, there is evidence of early, severe toxicity having a positive effect on tumor response in advanced gastric patients. In GI 6380, there is a small effect of toxicity on tumor response, but in GI 8376, nearly every responding pancreatic tumor was not in a patient with early, severe toxicity.

In three of four studies involving measurable disease, there was a suggestion that severe early toxicity was associated with greater tumor responsiveness. Pooling results from three specific measurable disease studies (GI 6380, 8376, 8380) produced a test statistic which was highly significant, indicating a strong association between early, severe toxicity and tumor response to therapy. However, by so doing, the effect would be to ignore the result from GI 9376, or to suggest that the hypothesis may be true for specific sites and drugs, with pancreatic cancer being less affected.

Thus, while there is some evidence that pharmacogenetics was indeed operating in some instances, this needs to be interpreted carefully. Only 161 out of the 933 patients in this study were considered to have early toxicity under the 30-day criterion. This means that even strongly favorable results would be of only moderate clinical consequence when viewed in the context of treating large populations of patients. However, the purpose of this study was not to identify a prediction system for response, but to see whether patients with severe host normal tissue reactions to drugs also had greater tumor responses.

While there is not strong evidence that the pharmacogenetic mechanism is *not* operating, demonstrating a statistically strong relationship is not possible from the data obtained because of the opposite conclusions identified. The inclusion of patients on GI (876 may have masked the effect because that study included extremely ill patients and the ineffective treatments being used may not have allowed the effect to materialize. Excluding GI (876 yields a significant p-value ($p = 0.02$, one-sided), which demonstrated a clear association between early, severe toxicity and tumor response.

In studies of pharmacogenetically determined unusual sensitivity, care must be taken to identify the small fraction of patients with very early and severe toxicity, as compared with cumulative late toxicity. Also, early dose-related "expected" drug toxicity has been shown not to be related to response.[2]

The ideal patient groups for a study of the possible pharmacogenetic interrelationship between response of normal tissue and of tumor to chemotherapeutic agents would be those with measurable disease being treated with drugs capable of inducing significant numbers of responses. Lympohomas and breast cancer may be worth analyzing, and such a study has been proposed to the Eastern Cooperative Oncology Group, with which the Hawaii CCOP is affiliated.

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Gastric Carcinoma in Hilo, Hawaii
An Assessment of Pathologic Prognostic Parameters

Barry Shitamoto, MD*

Gastric carcinoma is a common form of malignancy with distinct geographic and ethnic distribution. In the United States, there has been an overall drop in incidence over the past several decades.

This drop in incidence, however, has not been associated with an increase in survival. Gastric carcinoma still carries the same dismal prognosis that it has always had despite the recent advances in gastroscopy, cytology, and biopsy techniques.[1, 2, 3]

With 79 cases available for evaluation over a six-year interval, this study was performed to assess clinical, pathological, and prognostic parameters of gastric carcinoma in Hilo, Hawaii.

Materials and Methods

Clinical records of 81 patients with gastric neoplasms diagnosed from 1978 to 1983 at Hilo Hospital were reviewed. This study was based on the analysis of 79 patients with the diagnosis of gastric adenocarcinoma. The parameters evaluated included sex, race, age at diagnosis, symptoms, diagnostic mode, and type of surgery performed. Pathologically, the size, the depth of penetration, and the presence of metastasis were evaluated. The cell type and differentiation of the adenocarcinomas, with associated parameters of inflammatory response, desmoplasia, gastritis, and intestinal metaplasia were also reviewed. Several parameters were compared with survival in months. These included sex, size, depth of penetration, lymph node metastasis, and cell type and differentiation.

The carcinomas were divided macroscopically into five forms: (1) polypoid, (2) superficial, (3) ulcerated, (4) fungating, and (5) diffuse. Histologically, the carcinomas were divided into intestinal, diffuse and unclassified types according to the criteria set forth by Lauren.[4] All intestinal carcinomas were graded into well-, moderately and poorly differentiated grades of malignancy.

Carcinomas with predominance of well-formed tubular glands and minimal cytologic atypia were placed into the well-differentiated category. Moderately differentiated carcinomas showed recognizable glandular structures; however, there was architectural complexity, as well as atypical nuclear features, which were manifested primarily by pleomorphism and hyperchromasia. Poorly differentiated carcinomas showed poor and abortive gland formation, with areas of solid nests and sheets. This was usually associated with marked nuclear and cytologic pleomorphism.

Gastritis was microscopically graded numerically from 0 to 3+ with the latter grade representing severe atrophic gastritis. Intestinal metaplasia was separated into complete and incomplete types, based on the presence or absence of Paneth cells.

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Results

Pathological data were collected from 79 patients — 40 males and 39 females. The mean age of the group of males at diagnosis was 67.9 years, with a range of 29-92. The mean age of females at diagnosis was 71.5 years, with a range of 43-90. The racial distribution of the patients is shown in Table 1.

TABLE 1
Racial Distribution of Gastric Carcinoma
in Hilo, Hawaii (79 patients)

Race	Percent
Japanese	57
Caucasian (Spanish)	14
Filipino	6
Portuguese	6
Hawaiian-Chinese	6
Hawaiian	3
Puerto Rican	1
Korean	1
Chinese	1
Hawaiian-Filipino	1
Unknown	4

TABLE 2
Presenting Signs and Symptoms
In Gastric Carcinoma (55 patients)

Sign/Symptom	Percent
Pain	78
Weight Loss	49
Melena	42
Weakness	27
Anorexia	22
Vomiting	20
Hemetemesis	9
Dysphagia	7
Mass	5

Presenting Signs and Symptoms

The presenting features in 55 patients are depicted in Table 2. Abdominal pain was the most common complaint and was present in 40 patients (78 percent). The duration of pain ranged from three days to several years with the majority having pain of one to three months' duration. A decrease in weight was the second most common complaint and noted in 27 patients (49 percent). The average weight loss documented in 20 patients was 13.9 pounds, with a range from 4 to 25 pounds. Melena, weakness, and anorexia followed in 42 percent, 27 percent, and 22 percent of patients, respectively. The initial hemoglobin level in 54 patients was 10.8 gm/dl.

Diagnosis

Upper gastrointestinal X-ray examination was performed in 56 patients. Fifty-one (91 percent) had results that were either positive for malignancy or indicated that further evaluation was necessary, which led to the diagnosis. Endoscopic biopsies were performed in 50 patients, and of these 46 (92 percent) had biopsies done that were positive for malignancy. The endoscopic observations were in agreement with the biopsy results.

Pathological Findings

There were 50 surgical specimens available. The gastric neoplasms ranged in size from 0.8 to 14 cm with a mean size of 4.68 cm. There were four polypoid, two superficial, 14 ulcerated, 27 fungating and three diffuse forms. The biopsy and gastrectomy specimens included 59 intestinal-type adenocarcinomas, 20 diffuse-type adenocarcinomas, and no unclassifiable types. There was also one lymphoma (large, non-cleaved type) and one plasmacytoma. Of the intestinal-type adenocarcinomas, seven were well-differentiated, 36 moderately well-differentiated and 16 poorly differentiated.

In the gastrectomy specimens, neoplastic invasion was found limited to the mucosa and submucosa (early gastric cancer) in 10 cases. Muscular invasion was found in seven cases, while serosal and fat involvement occurred in 33. There were no well-differentiated carcinomas that extended into the serosa and fat. In contrast, all but one of the diffuse-cell carcinomas invaded into this area. Of the non-resectable carcinomas, seven were poorly differentiated (64 percent). Thirty-seven specimens yielded regional lymph nodes. Of these, 23 cases showed metastatic deposits (range 1-14 lymph nodes).

Intestinal metaplasia was associated with 86 percent of the intestinal-type adenocarcinomas and 50 of the diffuse-type adenocarcinomas. Of the 11 cases of intestinal adenocarcinomas without intestinal metaplasia, nine were from biopsy specimens with small amounts of tissue available. Chronic gastritis was invariably present in most specimens and was typically moderate in severity. The adenocarcinomas were associated with desmoplasia in 34 of the 42 (81 percent) gastrectomy specimens. An inflammatory response was present in 22 cases and moderate in intensity.

Treatment and Survival

Laparotomy was performed on 61 patients. Eleven patients (18 percent) were found to have non-resectable cancers. The remaining 50 had resections for either cure or palliation. These included 45 partial gastrectomies, three esophagogastrectomies, and two total gastrectomies. Twenty patients had biopsy only and, for varying reasons (carcinomatosis, refusal, etc.) did not receive further surgical management at Hilo Hospital.

Examination of the Tumor Registry Data at Hilo Hospital (1968-77) revealed 133 cases of gastric malignancy. The two- and five-year survival rates of these patients were 17.3 and 15.0 percent, respectively. The nearly identical survival figures at two and five years prompted the evaluation in the 44 patients (1978-81) that had at least two years of follow-up. Although the numbers were small and not statistically significant, notable trends were apparent. The overall two-year survival rate was 25 percent. (See Table 3.) The group had an average survival of 16.4 months. There were no appreciable survival differences between the sexes. The average tumor size at gastrectomy for the 25 patients who died during the follow-up period was 4.4 cm. This is in contrast to the three patients who are still alive (mean 43.3 months) at the time of the survey with an average tumor size of 3.0 cm. These malignancies were limited to the mucosa, muscularis propria, and serosa. Two were well-differentiated adenocarcinomas with one diffuse-cell type.

When the tumor grade was compared with survival, it was noted that although there were a few exceptions, the histologic groups showed stratification. Well-differentiated tumors showed the best average survival of 26.3 months. Moderately well-differentiated, diffuse and poorly differentiated carcinomas showed survival of 17.6, 16.5, and 5.3 months, respectively.

There were four early gastric cancers (ECG). Two of these were well-differentiated, one moderately well-differentiated and the fourth one a diffuse-cell type. EGC were compared with carcinomas that invaded into the muscularis propria[5], and serosa[19]. Survival stratified at 35.8, 26.6, and 16.3 months, respectively.

The status of the regional lymph nodes appeared as a valuable measure of prog-

TABLE 3

Clinico-Pathologic Parameters vs. Survival
in Gastric Carcinoma, in Hilo, Hawaii

	#Patients	Survival Mean (Months)	Survival % 2-Year
Patients	44	16.4	25
Male	21	15.9	19
Female	23	16.9	30
Depth of Invasion			
Mucosa-Submucosa	4	35.8	75
Muscularis	5	26.6	40
Serosa-Fat	19	16.3	26
Differentiation			
Intestinal Type, Well	4	26.3	75
Intestinal Type, Moderate	21	17.6	24
Intestinal Type, Poor	7	5.3	0
Diffuse Type	12	16.5	25
Lymph Node Metastasis			
Absent in	7	28.6	57
Present in	14	18.6	29

nosis with increases in both monthly and two-year survival for localized carcinoma.

Discussion

When the diagnosis of gastric carcinoma is established, the outlook is poor. The overall, five-year survival ranges from 7.4 to 19.4 percent.[3, 5, 6] The evaluation of 79 cases of gastric adenocarcinoma in Hilo, Hawaii, reveals a two-year survival rate of 25 percent. The poor prognosis in this and other series is largely due to the fact that most gastric adenocarcinomas are in an advanced stage when first diagnosed. Regional spread or disseminated disease was present in 78 percent of patients in our series. Not unlike others, our study revealed that survival is also dependent on tumor size, depth of invasion, and differentiation.[6] The best survival data were established in patients with smaller, superficial, and well-differentiated adenocarcinomas.

Japanese and European groups have had great success in diagnosing quite early the adenocarcinomas with these features[1, 7, 8] and therefore a potential for cure. They have labeled these as early gastric cancers. By definition, the classification comprises adenocarcinomas limited to the mucosa and/or submucosa regardless of lymph node status. Ten (10 percent) of our patients fell into this category, four of whom have two or more years of follow-up, establishing an average survival of 36 months. Five of the remaining six patients are still alive with 12 to 21 months of follow-up. Interestingly, these patients had no other distinguishing features that separated them from those with larger neoplasms. These patients had the same mean age and symptoms of chronic peptic ulcer as did the other group.

Gastric adenocarcinoma has been associated with several risk factors. These include gastric polyps, pernicious anemia, and the post-gastrectomy state. None of these conditions was present in our study population. Racial preponderance of Japanese reflected the high resident population and known ascribed increased risk.

In summary, gastric carcinoma is very common in Hilo, Hawaii. It follows colorectal and breast carcinomas in incidence. The population at risk includes the elderly Japanese in their seventh and eighth decades of life. The chief complaints are abdominal pain, weight loss, and melena. Within this group the only subset with extended survival had early gastric cancer. Unfortunately, this subset reveals no distinguishing features. Recognition of EGC may require increased vigilance on the part of the population at risk as well as refinements in our diagnostic techniques, such as those that Japanese and European researchers have established. These will all have to be performed within the constraints of increasing government regulation and emphasis on cost-effective methodology. Until then, gastric carcinoma may still carry the same dismal prognosis.

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Bilateral Oophorectomy vs. Ovarian Preservation During Hysterectomy: An Assessment

Alfred G. Scottolini, MD*

It is a fact that approximately 25 percent of all women who have had a hysterectomy are additionally routinely ovariectomized. It is also a startling fact that currently approximately 60 percent of all women who attain the age of 65 will have had a hysterectomy.[1]

The current practice during a hysterectomy is to preserve ovarian function in younger women, namely, those under 40 years of age, while routine oophorectomy is performed in women 40 and over. The highly touted reasons for preserving ovarian function where possible in premenopausal women are to prevent osteoporosis, premature atherosclerosis and coronary artery disease as well as the uncomfortable, frequently disabling, symptoms of vacomotor instability. On the other hand, proponents of prophylactic oophorectomy emphasize the not-insignificant risk of malignancy arising in residual ovaries, said to be as low as 3.6 percent and as high as 8.2 percent.[2, 3, 4] Furthermore, the risk of developing benign tumors in residual ovaries varies from 3.4 percent to 13.7 percent.[5, 6] The latter tumors are chiefly endometriomas, mucinous and serous

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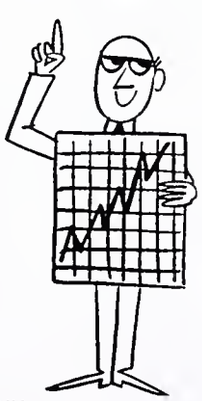

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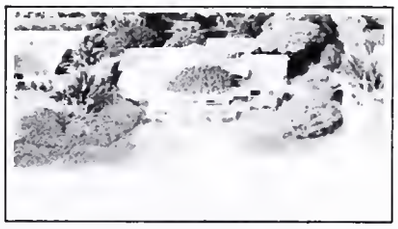

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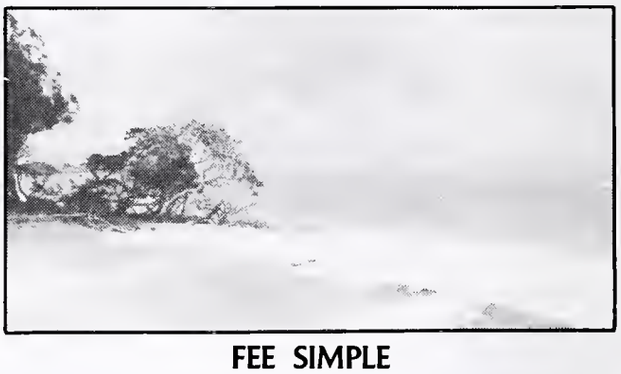

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cystadenomas. Those same proponents of prophylaxis, principally gynecologic oncologistsc hasten to point out that ovarian cancer is the fifth most common cause of death from cancer among women and the leading cause of death from pelvic cancer.[7] It is estimated that approximately 18,500 new cases of ovarian cancer will occur in 1985 in the United States, that approximately 11,600 deaths will occur from it during the same period, and that the incidence appears to be increasing.[8] The probability of developing ovarian malignancy is approximately 10 in 1,000; 1 percent of women over the age of 40 years will acquire ovarian cancer, and 4 percent of those over the age of 70 years will die from it.

Based on the remarkable frequency of hysterectomy for benign disease and the increasing incidence of ovarian cancer, it has been estimated that bilateral oophorectomy at the time of hysterectomy for benign disease might reduce that incidence by 20 percent.[7] If it were possible to diagnose ovarian cancer early, then this discussion would be of theoretical value only. Unfortunately, however, 70 to 80 percent of the tumors are Stage III or IV at the time patients present themselves and thus only palliative therapy is possible.[7] Since a significant number of these women who are referred to oncologists have previously had a hysterectomy for benign disease, the nagging, irrepressible suspicion is that a prophylactic ovariectomy would have saved their lives. With this question in mind, our experience at Kaiser Foundation Hospital from 1960 to 1984 inclusive was examined. Our findings, though drawn from a relatively small number of cases, support that impression.

Materials and Methods

Cases of ovarian cancer were culled from The Tumor Registry of Kaiser Foundation Hospital in Honolulu, Hawaii. Over the period from 1960 to 1984 inclusive, 95 cases were found. Over the same period, 949 cases were listed in the State of Hawaii Tumor Registry. Our caseload represented, therefore, approximately 10 percent of the total number — a not-insignificant sample of the whole universe of cases. The ages of the Kaiser sample ranged from 14 to 84 years of age. All races are represented in proportion to the multiracial population characteristic of Hawaii, with most of the tumors occurring in the two largest cohorts; namely, Caucasian and Japanese. The remainder were distributed among Hawaiian, Chinese, Filipino, and Samoan women. Patients' medical records were examined for a history of previous hysterectomy and the age at the time of surgery.

Results

From the total of 95 women with ovarian cancer, 17 (18 percent) had had a hysterectomy (vaginal or abdominal) with or without a *unilateral* salpingo-oophorectomy years before the first symptoms of their disease. Four of the 17 (24 percent) were less than 40 years of age at the time of surgery. The onset of symptoms due to ovarian cancer occurred between 40 and 70 years of age. Treatment ranged from surgery alone to varied combinations of all modalities — surgery and/or radiation and/or chemotherapy. Survival was less than one year for 22 (23.1 percent), one to four years for 43 (45.3 percent), and five or more years for 30 (31.6 percent). Five-year survival for all stages generally was 33 percent. The inescapable conclusion is that 17 or 18 percent of these patients need not have experienced the morbidity and/or mortality of ovarian cancer had a prophylactic bilateral oophorectomy been performed at the time of their hysterectomy.

Discussion

Some authors insist that the risk of cancer arising in retained ovaries is negligible.[1, 9] In fact, Garcia and Cutler argue that the incidence of cancer in women whose ovaries remain is even less than in those who have not had a hysterectomy! Indeed, their data suggest that the rate of cancer is even less in women with both ovaries than in those with just one ovary! So convinced are they of the profound importance of the ovaries at every age that they infer that oophorectomy be performed only when the ovaries are diseased — regardless of age. The one exception "might be the case of familial ovarian carcinoma syndrome."

Garcia and Cutler and Ong[1, 9] while acknowledging the data of several studies [3, 5, 10, 11] indicating that only approximately 50 percent of women with two residual ovaries and 25 percent with one ovary have normal ovulation, as well as other studies[3, 4] revealing that 40 to 50 percent of the women with cancer in preserved ovaries were younger than 40 and the remainder were older than 40, conclude that "routine bilateral oophorectomy should not be done at the time of total hysterectomy in a premenopausal women unless a definite indication exists."

Greenwals, a gynecologic oncologist, espouses a more rational approach with emphasis on prophylaxis[7]. He recommends bilateral oophorectomy in all women 35 or older undergoing pelvic surgery for benign or malignant disease, removal of grossly abnormal ovaries in women less than 35 years of age undergoing pelvic surgery for benign or malignant disease, and consideration of hysterectomy and bilateral salpingo-oophorectomy for women with a family history of at least close relatives with ovarian cancer.

Appreciating that our knowledge of ovarian endocrine function is undoubtedly limited and that much is still to be learned regarding the number and variety of ovarian hormones and other metabolites and their interactions with other endocrine secretions, one must recognize nonetheless that effective replacement hormonal therapy — estrogenic and progestogenic — is currently easily administered to prevent the menopausal syndrome, osteoporosis and atherosclerosis. Therefore, when faced with the decision whether to preserve the ovaries at the time of hysterectomy in women under 40, the gynecologist must weigh the significant risk of cancer developing in the preserved ovaries and the 50-50 chance that they may not function normally, as against the inconvenience and expense of exogenous hormonal administration following extirpation.

In view of the difficulty of diagnosing ovarian cancer early, and the consequent poor prognosis, I believe that the general gynecologist should recommend prophylactic bilateral oophorectomy to his patient at the time of the contemplated hysterectomy. If our sample of 95 cases is epidemiologically representative of the total number (949) of ovarian cancers in the State of Hawaii (and this seems highly probable), then we can extrapolate beyond our sample based on our experience and that of others[1, 2, 3, 4, 7] and assume conservatively that at least 18 percent of the 949 women, that is, 171, had a previous hysterectomy and could have been spared their disease had a prophylactic bilateral oophorectomy been performed at the same time.

ACKNOWLEGMENT

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Depression in Cancer Patients: An Overview

Jing Hsu, MD*

Depression is the most common psychiatric symptom in cancer patients. While transient symptoms occurring around crisis points in cancer illness are normal, more severe or protracted depressive symptoms should be evaluated and treated. This article reviews current knowledge of the prevalence of the common myths about, the diagnosis and differential diagnosis of, and the psychological as well as pharmacological treatment of depression in cancer patients.

During the past 30 years there have been significant changes and improvements in the treatment of cancer patients, advances that have resulted in longer survival and more cures. As a result, patients, families, and physicians have become increasingly concerned about the quality of survival life and the emotional complications of the disease and its treatment. In some places, a new subspecialty of oncology — Psycho-oncology — has developed to deal with these issues. Among the more serious emotional complications of cancer, the most common is depression. This article reviews the current knowledge and the prevalence of myths about, and the diagnosis and treatment of, depression in cancer patients.

Are All Cancer Patients Depressed?

Even though depression in some form is an issue that must be faced by many patients and physicians dealing with cancer, depressive disorders in cancer patients are, for the most part, underdiagnosed and undertreated. This is due in part to the beliefs that: (1) All cancer patients are depressed throughout the entire course of their disease; (2) patients with cancer should be depressed; and (3) there is no effective treatment for depression in patients with cancer. The increasing body of information being developed in this new field dispels each of these myths.[1]

The question, "Wouldn't you be depressed if you had cancer?" frequently functions as a disclaimer for the need for a closer evaluation of the problem. People who believe that depression is a natural part of illness fail to differentiate between depression as a normal mood state, a symptom, a clinical syndrome, and as a disease entity. Depression, like fever, cough, and abdominal pain, should be regarded as a non-specific symptom that requires a diagnostic evaluation. Until recently, there has been little formal research in this area. However, ongoing collaboration between psychiatry and oncology is beginning to generate systematic observations and information.

The Psychosocial Collaborative Oncology Group, a group experienced in the psychosocial aspect of oncology, has carried out a study of the prevalence of psychiatric disorders in cancer patients by interviewing a random population of 215 hospitalized and ambulatory patients at three major centers (Johns Hopkins; Strong Memorial Hospital, Rochester; and the Sloan-Kettering Memorial Hospital), and has assessed their mental status using DSM III, the new diagnostic system for psychiatric disorders.

Of these patients, 101 (47 percent) met the criteria of some kind of psychiatric disorder (Table 1). Among the group with psychiatric disorders, 68 percent was diagnosed as having Adjustment Disorder, a reactive type of disorder that is often responsive to psychological intervention and a positive change in medical status.

An additional 13 percent was diagnosed as having Major Depressive Disorders, which have been found to be highly responsive to pharmacologic intervention not only in but also potentially treatable in a similar fashion in cancer patients. These conditions, and a smaller group (4 percent) of Anxiety Disorder, brought to 85 percent the total proportion of patients with psychiatric conditions that may be considered to have a high potential for amelioration of symptoms (Table 2).

This finding suggests that the pervasive emotional distress and dysphoria often associated with cancer may not be inherent parts of the neoplastic disease but rather constitutes a separate and potentially treatable condition.[2] It is interesting to note that 53 percent of cancer patients surveyed suffer from no psychiatric disorders. Considering this study and others,[3, 4, 5] we can note that depressive and anxiety disorders constitute not only the most common psychiatric problems found in cancer patients, but are also the most common reason for psychiatric referral.[6, 7]

Medical Disorders Mimic Depression

A variety of factors have been identified as being etiological to the depression secondary to cancer. However, when confronted by patients suffering from cancer with depression, the first task of the clinician is to see whether the "depression" is secondary to medical conditions. Medical disorders that may manifest depressive symptoms are listed in Table 3.

Metabolic encephalopathies are the most common neurological complications in hospitalized cancer patients and are a frequent cause of depressive symptoms. Metabolic factors to consider include hypokalemia, hypoxia, hypoglycemia, and hypercalcemia. *Endocrine disturbances,* like hypothyroidism, and

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This paper was presented at The Tumor Conference, St. Francis Hospital, December 1984.

Table 1

Prevalence of Psychiatric Diagnoses in 215 Cancer Patients

	No.	
With psychiatric diagnoses	101	47%
Psychiatric diagnosis absent	114	53%
	215	

From: Johns Hopkins; Strong Memorial Hospital, Rochester, New York; Memorial Sloan-Kettering Cancer Center, New York.

Table 2

Distribution of Psychiatric Disorders Among Cancer Patients

Diagnosis	
Organic mental disorder	8%
Major affective disorder	13%
Adjustment disorder	68%
Anxiety disorder	4%
Personality disorder	7%
TOTAL	100%

Adapted from Derogatis et al, 1983.

Table 3

Medical Disorders that Mimic Depression

- Metabolic encephalopathies:
  Hypokalemia, hypoglycemia, hypercalcemia.
- Endocrine disturbances:
  Hypothyroidism, disturbance in cortisol metabolism, ectopically produced hormonal substances (parathormone, vasopressin, methionine, enkephalin, B-endorphin).
- Brain tumors, metastases, hemorrhages, infections.
- Nutritional deficiencies.
- Drug-induced:
  Chemotherapeutics, steroids, psychotropic medications.

disturbances in cortisol metabolism can also present depressive symptoms. A series of ectopically produced psychoactive hormonal substances, including parathormone, vasopressin, methionine enkephalin, and Beta-endorphin are increasingly being recognized as responsible for changes in mental status in some cancer patients.[8]

Patients with *cerebral tumor, metastatis, hemorrhage, infections,* may also show symptoms of depression; depression may also result from tumor growth outside the nervous system. The paraneoplastic syndromes of pancreatic cancer, for example, are well-known.[9, 10]

Nutritional status can be severely compromised during the course of cancer therapy and in extreme situations may be associated with identifiable deficiency disorders that are associated with depression; however, in many cases impaired nutritional status is one of many nonspecific somatic factors leading to impaired function and feelings of depression.

Drug-induced mental state changes are an important cause of pseudodepression in these patients. Chemotherapeutic agents often produce psychiatric disturbances, including depression. According to Peterson and Popkin (1980), the agents most commonly associated with depression are the vinca alkaloid, the enzyme L-asparaginase and the alkylating agents, dacarbazine, and hexamethylamine.[11]

Vincristine and Vinblastine, used in the treatment of leukemia, can cause peripheral neuropathy, lethargy, and depression. L-asparaginase, used in acute lymphoblastic leukemia, causes significant CNS toxicity at commonly used doses. Subtle memory and personality changes may precede lethargy and confusion. Marked symptoms of depression, delirium with hallucinations and impaired recent memory have been reported.[12]

Procarbazine, used for treatment of Hodgkin's disease and lymphoma, produces few neurologic side effects at usual doses. At higher levels, however, up to 30 percent of patients develop CNS toxicity with somnolence, lethargy, depression, mania, confusion, and hallucinations. Most of the effects of these agents appear to be reversible and dose-related. In contrast to the majority of disturbances that occur shortly after the administration of the causative agents, the affective disturbance seen with L-asparaginase may appear months after the treatment was administered.

Glucocorticosteriods are widely used in cancer. The steroids may produce a variety of psychiatric changes including depression, euphoria, fear, paranoid ideation, illusion, and hallucination. Symptoms often develop four to five days after beginning high-dose steroids, or when the dose is being rapidly tapered down. However, psychiatric symptoms can also develop while patients are on a maintenance dose of steroids.

In such cases, if the patient can be withdrawn from steroid therapy, the associated mental state changes often disappear. However, for those who need to continue receiving steroids, the addition of psychotropic medications such as amitriptyline for depression or haloperidol for psychosis is usually effective. High doses of interferon may also cause severe depression with suicidal ideation.[1]

Excessive CNS depressants will produce states resembling depression. Patients who are given benzodiazepines for anxiety and insomnia, may accumulate depressant levels of these drugs, especially if metabolism is impaired by hepatic dysfunction.[13]

Finally, depression is virtually impossible to evaluate in a patient with severe ongoing pain. When appropriate and adequate analgesic medication is used to treat pain in patients with advanced cancer, symptoms of depression often resolve spontaneously.

Not all depression in cancer patients is psychological in origin; any tendency to regard it as such ignores the complexity of interacting factors. It also risks overlooking potentially reversible causes. Therefore, careful assessment in order to identify specific mechanisms is essential in the care of cancer patients who manifest psychiatric symptoms, including depression.

Normal Versus Pathological Depression

Non-organic depression in cancer patients can usually be classified into three groups:

1—Uncomplicated Normal Reaction.

2—Maladaptive Reaction (Adjustment Reaction).

3—Major Depressive Disorder.

When an individual receives a diagnosis of cancer, the (1) Normal Reactions are shock and disbelief, followed by sadness, crying, feelings of hopelessness and helplessness. However, in spite of inter-

mittent periods of depression, the person retains the ability occasionally to enjoy himself and even to become cheerful at times. The acute response is ordinarily resolved in one to two weeks. Then the individual accepts the fact and copes with it realistically until the next crisis comes along.

In (2) Adjustment Reaction, the patient doesn't use adaptive coping strategies and there is an undue increase in severity or prolongation of symptoms beyond that usually seen. There is severe impairment in social or occupational functioning; symptoms are in excess of a normal and expected reaction to stress.

For example, the patient may continue to feel hopeless and helpless and unable to cope with life's routine for several months. The degree of stress engendered varies according to the manifestations of the disease — psychological meanings attached to cancer, prior level of emotional adjustment, threats posed to attainment of individual goals, supportive systems, required treatment and prognosis.

(3) Major Depressive Disorder in a cancer patient is often a diagnostic challenge. It is very difficult, sometimes impossible, to single out a major depressive disorder in a patient who has advanced cancer, as the diagnosis of depression in physically healthy patients depends heavily on somatic symptoms of insomnia, anorexia, fatigue, and weight loss. However, these indicators are of little diagnostic value in cancer patients, since they are common to both conditions. Thus, the diagnosis of depression must rest mainly on psychological symptoms. The psychological symptoms of a Major Depressive Disorder are: markedly depressed mood; anhedonia (loss of interest or enjoyment in the usual pleasurable activities); feelings of worthlessness; excessive and inappropriate guilt feelings; a feeling of hopelessness; unresponsiveness (for example, when a patient is told by physicians that remission or cure is attainable, he still believes it is useless and therefore refuses treatment); agitation and restlessness; crying spells; suicidal thoughts; delusions; social or vocational impairment; difficulty with concentration; social withdrawal; and decreased talkativeness. Insomnia in patients with Major Depressive Disorder is often of the early awakening type rather than the kind related to pain. The latter usually responds to aspirin rather than to the usual sleeping medications.

Cancer patients who are at a higher risk for depression are those with poorer physical states, inadequately controlled pain, or advanced stages of illness, particularly those with pancreatic cancer.

Depression Is Undertreated

Treatment of depression in a cancer patient includes medication and psychotherapy.

TABLE 4

Rate of Psychotropic Drug Prescriptions used in Cancer Patients

Major Drug Categories	% Prescribed	Most Frequent Drugs
Hypnotics	48	Flurazepam
Antipsychotics	26	Prochloriperazine
Anxiolytics	25	Diazepam
Antidepressants	1	
Stimulants	0	
	100	

Adapted from Derogatis et al, 1979

TABLE 5

Pharmacologic Profiles of Tricyclic and Tetracyclic Antidepressants

	Orthostatic Hypotension	Anticholinergic Effect	Sedative Effect
Tricyclic, Tertiary Amines			
amitriptyline (Elavil)	+ + +	+ + + + +	+ + + + +
imipramine (Tofranil)	+ + + + +	+ + + +	+ + +
trimipramine (Surmontil)	+ + +	+ + + +	+ + + +
doxepin (Sinequan)	+ + +	+ +	+ + + +
Tricyclic, Secondary Amines			
desipramine (Norpramin)	+ +	+	+
protriptyline (Vivactil)	+ +	+ + +	+
nortriptyline (Aventyl)	+	+ + +	+ +
Second Generation Antidepressant			
amoxapine (Asendin)	+ +	+ +	+ +
maprotiline (Ludiomil)	+ +	+ +	+ + + +
trazodone (Desyrel)	+ + +	+	+ + + + +

Before discussing specific treatment, let us first review some data on current psychotropic drug prescription practices in cancer patients. A study by Derogatis and associates[14] of 1,579 cancer patients found that 51 percent of them were on some kind of pscyhotropic medication. Hypnotics represented the most utilized class of drugs (approximately 50 percent of prescriptions); anti-anxiety agents and antipsychotics comprised about 25 percent of presciptions each; antidepressants were rarely used (1 percent) (Table 4).

As to the reasons for prescribing psychotropic medications, the same study by Derogatis *et al.* indicated that 44 percent of all psychotropic prescriptions were for sleep, 25 percent for nausea and vomiting. "Psychological distress" ranked third, accounting for only 17 percent of the prescriptions. This observation is consistent with the aforementioned fact that antidepressants accounted for only 1 percent of prescriptions, although depression is the most common problem among cancer patients.[14]

In comparing individual drug prescriptions, flurazepam is the most commonly prescribed drug, with prochloriperazine and diazepam following next in line. These three compounds account for about 70 percent of all psychtropic medication. This finding indicates that physicians tend to use a single drug from each major category predominantly.[15] Probably due to a lack of familiarity with varying mechanisms and side effects of

the different psychotropics, physicians are not comfortable in using them. Studies have shown that many non-psychiatric physicians feel uninformed and uncomfortable in prescribing certain classes of psychotropics, particularly tricyclic antidepressants.[16, 17]

Treatment of Depression

Treatment of depression in cancer patients depends largely on the diagnosis or on the kind of depressive disorder that affects the patient.

The cornerstone of optimal management of Situational Depressive Reaction in a patient with cancer is the emotional support given by the physician and other staff members who have a trusting relationship with the patient. Psychiatric consultation should be considered only when severe depressive symptoms last longer than a week, when they worsen rather than improve, or when they interfere with the ability to function or to cooperate with treatment.

The psychiatric intervention used in such patients is short-term supportive psychotherapy, dealing with the here and now of adaptation to the diagnosis and treatment. Four to 10 sessions are usually sufficient to reduce symptoms to a tolerable level. Inclusion of a family member in therapy and having the individual attend a group composed of patients who share the same problem are also beneficial approaches.[11]

Prolonged and severe symptoms suggest that a major depressive disorder should be treated by a regimen combining supportive psychotherapy with antidepressants. There have been few controlled trials of antidepressant therapy in cancer patients. Purohit and his associates compared the effect of imipramine plus radiotherapy versus radiotherapy alone in 39 depressed cancer patients. Eighty percent of the imipramine-treated group showed improvement, as compared with improvement in 42 percent of those not receiving the drug. More trials of this sort are needed to establish which antidepressant drugs are most efficacious and for which patients, and how various adverse side effects may be avoided among the seriously ill.[18]

When considering pharmacotherapy for the major depressive disorders, it is helpful to note two phenomena:

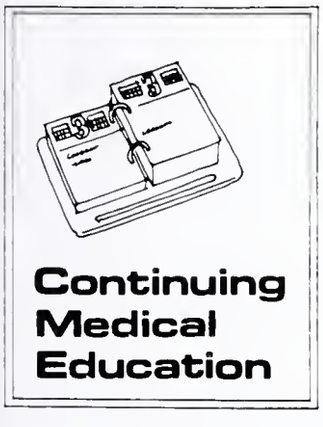
First, studies have shown, for whatever reason, that cancer patients, like geriatric patients, appear to respond to antidepressants at a lower dose, usually one-half or one-third of the usual therapeutic dose, and more quickly. Treatment should start with a low dose, especially in a debilitated patient, such as amitriptyline 10 mg bid, or doxepin 25 mg bid. Dosage can then be adjusted upward as tolerated to 75-150 mg/day. "Start low, and go slow," is the dictum.

Second, different antidepressants, because of their different mechanisms, have different side effects. Familiarity with these differences will help the physician to choose an agent which will not exaggerate the existing medical problems. As a matter of fact, side effects may even be used to ease some of the troublesome symptoms. For example, antidepressants which are more sedative, such as amitriptyline, doxepin, maprotiline, and trazodone, can be given at bedtime to reduce sleep disturbance. Doxepin and nortriptyline, a metabolite of amitriptyline, are available in liquid form for patients who cannot swallow a tablet. Parenteral amitriptyline is available for those who cannot take oral medications.

Tricyclic antidepressants are associated with anticholinergic side effects, particularly dry mouth, constipation, and urinary retention, which can be troublesome in cancer patients who have stomatitis secondary to gastrointestinal or genitourinary cancer. Antidepressants with weaker anticholinergic effects, such as trazodone and desipramine are better for these patients.

In older patients with cancer, when cardiovascular problems are present, it is often necessary to use an antidepressant

(Continued on page 290)



CALENDAR OF ACCREDITED EVENTS—CATEGORY 1

Accredited Programs of CME allow one unit of AMA credit for each hour of instruction excluding all "breaks." Some programs also are accredited for AAFP prescribed credit.

LOCAL ACCREDITED PROGRAMS
ONGOING

For a complete list of ongoing programs, please refer to the March 1986 issue of the HAWAII MEDICAL JOURNAL. Further information is available through the individual institutions or through the HMA's CME Department.

SPECIAL EVENTS

All special events should be confirmed with the CME program sponsors, as cancellations are not necessarily reported to the HAWAII MEDICAL JOURNAL.

Oct. 10-12, 1986	Hawaii Medical Association 130th Annual Scientific Meeting — Stress and Heart Disease, Jennie Asato, Hawaii Medical Association, 320 Ward Ave., Suite 200, Honolulu 96814, (808) 536-7702. Location: Westin Ilikai Hotel, Honolulu.
Oct. 18-25, 1986	Operative Arthroscopy, Janet Frank, assistant director, Continuing Education in Health Sciences, UCLA Extension, 10995 Le Conte Ave., Room 614, Los Angeles, Calif. 90024, (213) 825-8423. Location: Maui.
Oct. 18-26, 1986	Annual International Body Imaging Conference, Dept. of Radiology, West Park Hospital, 22141 Roscoe Blvd., Canoga Park, Calif. 91304, (818) 340-0580 X280. Travel agent: Innovations in Travel, 9545 Reseda Blvd., Northridge, Calif. 91324, (818) 701-1164. Location: Maui Marriott.
Oct. 20-24, 1986	New Approaches to the Evaluation of Neoplastic Lymphoproliferative Disorders, co-sponsored with the University of Southern California, Dr. John Parker, professor and co-chairman, Department of Pathology, University of Southern California School of Medicine, 2025 Zonal Ave., Los Angeles, Calif. 90033, (213) 224-7121. Location: Maui.
Nov. 2-8, 1986	Districts VII-IX Continuing Medical Education, American College of Obstetrics and Gynecology, 600 Maryland Ave., SW, Suite 300E, Washington, D.C. 20024, Attn: Barbara Kallas, (202) 638-5577. Location: Hyatt Regency Maui.

Natural Killer Cell Function in Cancer Patients Treated with Natural Leukocyte Interferon-alpha

Clara Ching, PhD;* Clifford Wong, PhD;* Maria Venie Cruz, MS;* Dean Sato, BS;* G. Kaui Wong;* Ronald Herberman, MD;†† Nathaniel Ching, MD**†

Biological response modifiers (BRM) such as interferon (IFN) and interleukin-2 (IL-2) offer new immunotherapeutic approaches to cancer by increasing the body's own natural immune system to kill tumor cells. A Phase II clinical trial with natural human leucocyte IFN (IFN alpha, Warner-Lambert), one million units three times a week for eight weeks, has been designed to produce sustained augmentation of natural effector functions and anti-cancer effects.

In Hawaii, this protocol is available for selected cancer patients with recurrent nasopharyngeal, breast, renal, head-neck carcinomas, non-Hodgkin's lymphoma, chronic myelogeneous leukemia, hairy cell leukemia, multiple myeloma and melanoma. Natural killer cell (NK) function was monitored using the herpesvirus infected fibroblast, NK(HSV-1) and the human erythro-myeloid leukemia cell line K562, NK (K562) in nine cancer patients (7 renal cell Ca, 2 breast Ca).

An initial response in NK(K562) activity was observed after one week of therapy. However, the NK(K562) activity returned to baseline levels during the remainder eight-week course. In two renal cell cancer patients, NK (HSV-1) activity showed a trend toward increased activity during IFN treatment. Patients with nasopharngeal carcinoma treated with higher doses of IFN alpha (nine times 10E6 U/day for 30 days) showed decreased NK activity and lymphoproliferative response to PHA.

The present study shows that this Phase II protocol did not result in the severe depression in NK activity of the renal cancer patients as reported in other studies.

An optimal immunomodulatory dose or schedule for biological response modifiers (BRM) such as interferon (IFN) and interleukin-2 (IL-2) has yet to be defined. BRM can offer new immunotherapeutic approaches to cancer by increasing host anti-tumor responses through augmentation and/or restoration of natural effector mechanisms, or by their direct antiproliferative effects on tumors.

Natural killer (NK) cells are now recognized as a major component of the host immune defense system involved in immunosurveillance against tumor development and microbial infection.[8, 9] In most clinical IFN trials, high-repeated IFN doses have resulted in a depression of NK activity.[11, 12-15] The major objective of this study was to determine the immunomodulatory effects of a "low dose" IFN protocol on natural effector cells and whether the herpes virus-infected fibroblast may be a more relevant target to monitor NK activity.

Materials and Methods

I. *Clinical Population:* Warner-Lambert natural leukocyte alpha-interferon provided by the BRM Program, NCI-FCRF, Frederick, MD, was administered IM three times a week, using a dose of one million units, for a period of eight weeks. Nine cancer patients with advanced metastatic disease, two with breast carcinoma and seven with renal cell carcinoma, have thus far been treated with this IFN protocol. All patients gave informed consent.

II. *Immunologic Study:* Multiple immunologic parameters, NK function, mitogen-induced lymphoproliferation, and lymphocyte subpopulations were monitored according to the following schedule: two baseline determinations and again 24 hours later; and again prior to IFN therapy on Monday, and 24 hours following therapy, on alternate weeks. Peripheral blood mononuclear cells (PBM) from heparinized venous bloods were separated by the Ficoll-Hypaque (FH) density gradient sedimentation method of Boyum.[2] PBM were washed and resuspended in RPMI 1640 medium containing 10 percent heat-inactivated fetal bovine serum (RPMI-FBS), 100 units of penicillin per ml, 100 ug of streptomycin per ml, 2mM glutamine, and 20mM HEPES.

NK activity to human foreskin fibroblast (FS4) targets, infected with HSV-1, NK (HSV-1) and uninfected, NK (FS), was determined in a 14-to-16 hour ^{51}Cr release assay as described by Ching et al.[3, 4] To test for *in vitro* IFN augmentation, Leu-IFN-alpha (1,000 Units/10E + 6 PBM) was added to PBM and incubated for one hour at 37°C before assay. NK activity to K562, a

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human erythro-myeloid leukemia cell target, NK (K562), was determined in a three-hour ^{51}Cr release assay similar to the NK (HSV-1) assay. For the analysis of NK data, the exponential fit equation, where $y=A[1-\exp(-kx)]$, was used.[16, 17] Procedures for rigorous standardization of the NK assays for daily variations were included.[13-15] Lymphoproliferative response to phytohemagglutin (PHA) was determined in Terasaki plates.[14] Lymphocyte subpopulations were analyzed by flow cytometry (St. Francis Hospital, Department of Pathology) using fluorescein-labeled monoclonal antibodies (Ortho Diagnostics, Raritan, NJ): OKT8 (suppressor/cytotoxic T cells); OKT4 (helper/inducer T cells); OKT3 (pan T cells).

III. *Data Management and Statistical Analysis:* Data was maintained in Lotus 123[R] (Lotus Development Corp., Cambridge, Mass.) files and statistical analysis performed on an IBM-XT microcomputer utilizing the PC-Stat program (Human Systems Dynamics, Northridge, Calif.) In serial studies of patients receiving IFN therapy, NK data (Lytic Units at 20 percent cytotoxicity) were transformed to and expressed as percent of change from the mean of the two pretreatment analyses of NK activity in order to compare changes between different patients. The differences between unrelated samples were compared utilizing the non-parametric Mann-Whitney test; related samples were analyzed utilizing the paired t-test.

Results

I. *Nasopharyngeal carcinoma (NPC) patients treated with Hu Lei-Alpha IFN (Cantell) nine times 10E + 6 U daily for 30 days.*

NK activity in NPC patients treated with nine times 10E+6 M U IFN daily for 30 days decreased significantly during continued IFN administration (Figure 1). In one patient, therapy was interrupted because of extreme weakness and lethargy. However, after a rest period of two weeks, NK activity returned to normal levels.

II. *NK Activity During IRN therapy with natural human leucocyte IFN — alpha (Warner-Lambert), one million units, three times a week for eight weeks.*

NK activity was measured pre- and 24 hours post-IFN administration. All NK (K562) activity measurements before IFN injections averaged 130 percent ±66 of baseline values [these measurements represent samples taken from zero to eight weeks and may represent some deviation from initial baseline averages]. Measurements taken 24 hours after IFN injections averaged 154 percent ±88. NK (K562) augmentation, however, was not statistically significant utilizing the paired t-test analysis.

Similarly, there was no boosting of NK (HSV-1) levels, 108 percent ±90 (pre) and 118 percent ±90 (post IFN administration). However, when the patients were individually analyzed, two out of seven renal carcinoma patients had significant increases in NK (K562) activity, 24 hours after their IFN administrations ($P<0.05$, by Mann-Whitney analysis of the first week's results. NK (HSV-1) activity increased from 94 percent ± 58 to 117 percent ± 92, with no significant difference.

III. *NK activity following in vitro*

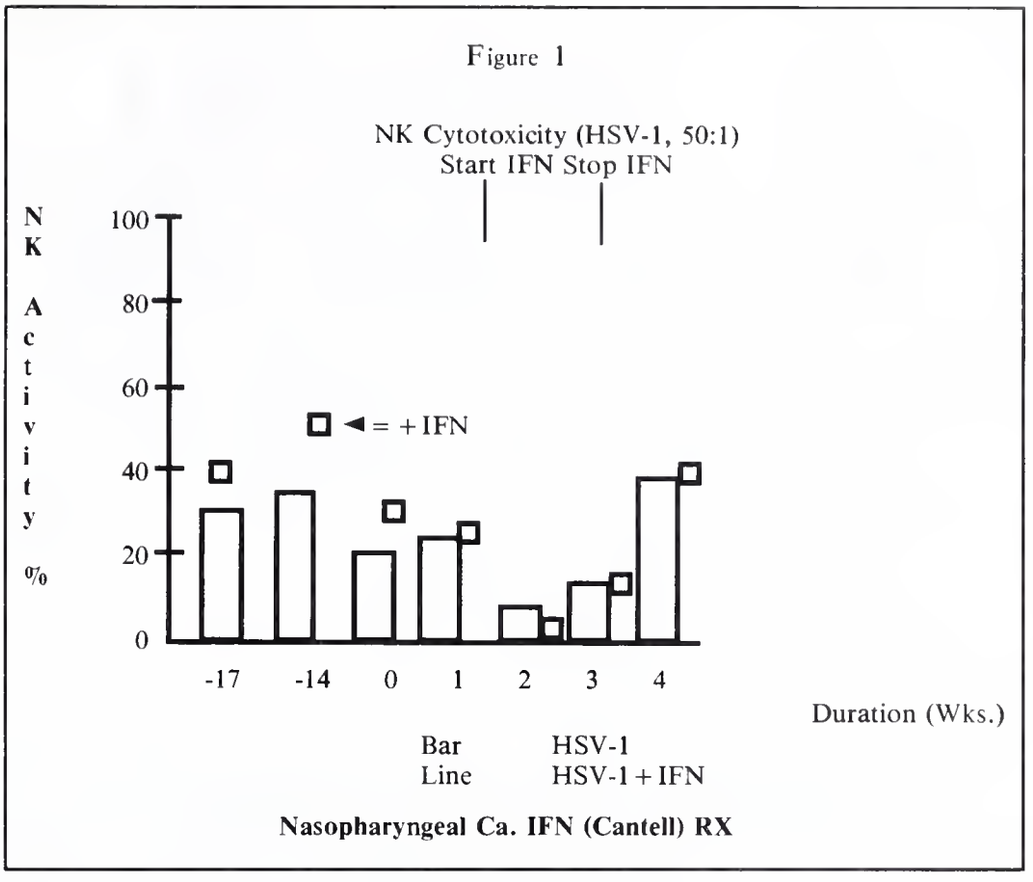

Figure 1: NK (HSV-1) activity, expressed as percent NK activity, decreased in a nasopharyngeal cancer patient receiving nine million units of HeLeuIFN-alpha daily for 30 days. IFN was discontinued because of lethargy. During this rest period, NK activity increased to baseline levels.

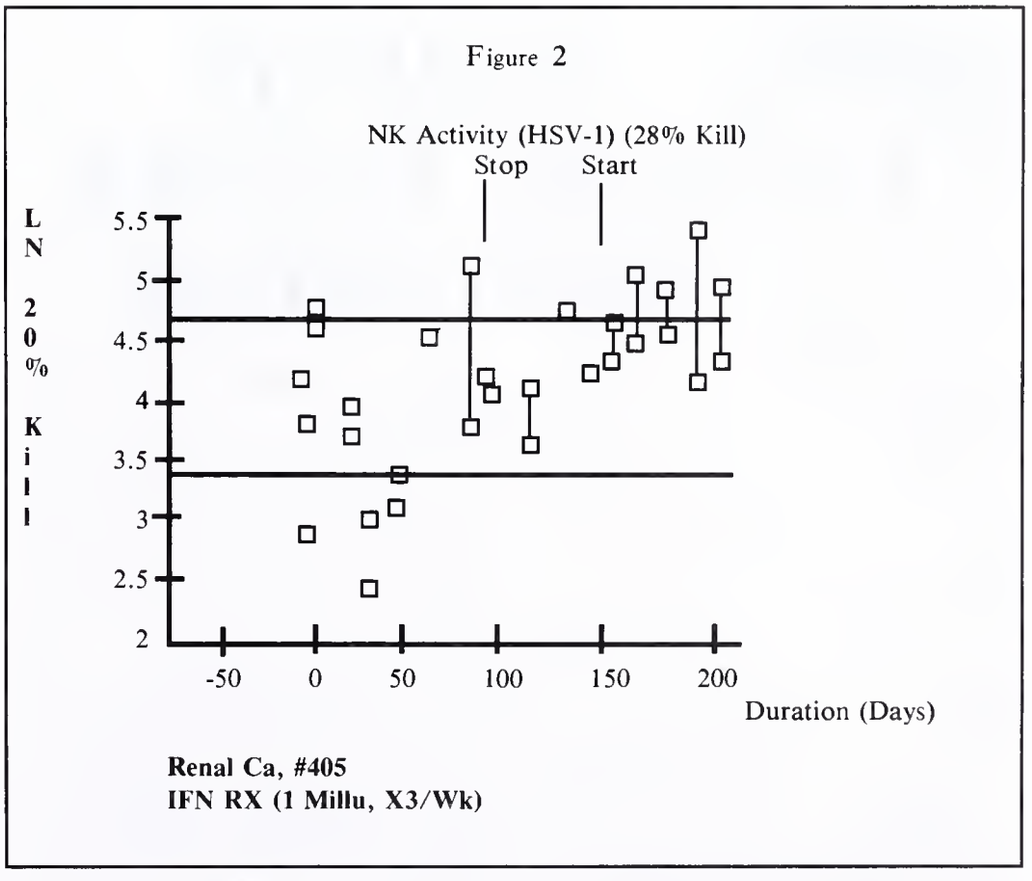

Figure 2: NK (HSV-1) activity in a renal cancer patient receiving one million units of HuLeuIFN-alpha three times weekly expressed as the natural logarithm of the standardized lytic units [LN(LU)]. Horizontal lines mark ± 1 S.D. of the mean LN(LU) of the normal population. A progressive increase in NK activity was observed.

treatment with IFN:

The *in vitro* stimulation with IFN of PBM from renal carcinoma patients resulted in significant augmentation of NK activity by paired t-test evaluation. NK (K562) increased from 330 LU ± 343 to 503 LU ± 555; NK (HSV-1) increased from 69 LU ± 52 to 123 LU ± 102, both $P < .001$. This increased *in vitro* augmentation could also be demonstrated in samples drawn 24 hours after IFN administration. In contrast, breast patients PBN showed no further augmentation of NK (K562) activity (125 LU ± 134 vs 171 LU ± 112). Augmentation to NK (HSV-1) activity was observed (24 ± 21 vs 39 ± 32).

IV. *Trends in NK Activity in Selected Cancer Patients:*

Two breast carcinoma patients showed significant depression of NK (HSV-1) activity with therapy. Figure 2 shows the NK (HSV-1) activity in a renal carcinoma patient. This renal patient had high pretreatment NK (K562) activity, but NK (HSV-1) was quite low. NK (K562) remained above normal levels while NK (HSV-1) continued to show a trend towards increased activity during IFN therapy. The NK (HSV-1) activity in this renal carcinoma patient was significantly boosted initially followed by a decline. However, with the start of his second cycle, a gradual increase in NK function during IFN therapy was seen. This patient has continued with IFN medication and is currently on his fifth course of treatment.

V. *Lymphocyte Proliferative Assay and Lymphocyte Subpopulation:*

Lymphoproliferative response to PHA in the renal cancer patient depicted in Figure 2 was within the lower range of normal values and was generally maintained at the baseline level throughout therapy. The second patient (MA) also had low normal values which showed a slight increase with therapy and was maintained within the normal range. Lymphoproliferative response at the pretreatment baseline level was low in renal patients AT, MK (1631, 6415cpm); RP had 14,025 cpm in the low normal range (normal range 19,399 ± 5,944).

The OKT4/OKT8 ratio in nine cancer patients was analyzed. Three renal and one breast patient had ratios less than 0.7 (normal ranges were 0.7 to 2.8). These three patients did not complete their course of IFN therapy because of weakness or progression of disease.

Discussion

In the present investigation, NK function was examined to determine the immunomodulatory effects of this natural human leucocyte IFN protocol on the natural immune system. The hyporesponsiveness of NK function after multiple high doses of IFN has been demonstrated in murine models (19) and in

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What Have We Learned From the Breast Cancer Detection Demonstration Project?

Fred Gilbert Jr., MD,* Nuclear Medicine, Straub Clinic & Hospital; Gloria Low, MPH**

Between 1974 and 1979, 10,000 women without symptoms or suspicion of breast cancer entered a screening project to detect the presence of breast cancer in asymptomatic women. Of the 10,000 women, 181 breast cancers were discovered in 171 women during the five-year screening period. An additional 82 women developed 89 breast cancers during the five-year follow-up period.

Although preliminary analysis of this data has been published both nationally[1] and locally,[2, 3] this article summarizes what we have learned from this project over the past decade and some of the unresolved issues. A similar report has been distributed via a final newsletter to the 10,000 women who participated.

The Breast Cancer Detection Demonstration Projects (BCDDP) raised the level of capability of early detection of breast cancer in Hawaii and the nation. It was started here in Hawaii early in 1974.

Accomplishments

For years we knew that some women were lucky enough to have had a minute breast cancer discovered and treated because it happened to be next to or in a biopsied lump. In the early 1970s, the Breast Cancer Detection Demonstration Projects brought to communities across the country the means to detect systematically these tiny, often microscopic, cancers through the use of the relatively new technique of breast X-ray imaging called mammography. Initially, personal physicians, surgeons, radiologists, and pathologists had difficulty in making decisions about suspected cancers that could neither be seen nor felt. However, increased use of mammographic units and technical improvements were paralleled by increased professional skills in both the diagnosis and management of breast cancer. Diagnosing smaller localized cancers resulted in more conservative forms of treatment that offered an alternative to the radical mastectomy. This new knowledge was made available to women, enabling them to participate more actively in decisions regarding treatment.

In 1975, the Kodak Company developed the rare-earth screen that converts X-ray energy into light energy. The author (Gilbert) applied this to mammography in Hawaii's BCDDP the same year. This new technique resulted in an enormous reduction in radiation exposure without losing definition. These screens not only reduced mammographic radiation to 10 percent of what had been a previous low level, but also led to similar reductions in radiation levels in other procedures, such as X-rays of the chest.

While physicians improved their skills, nurses and X-ray technologists were trained and learned how to palpate the breast for possible tumors. This new skill was honed to a very high degree because these people received precise instruction on breast examination and then performed 20 or more examinations daily, month after month.

Utilizing these improved capabilities during the five years of screening, the BCDDP detected 181 breast cancers in women who were unaware that they had it. Although almost 45% of these cancers could be felt with the fingertips, an additional 42% were so small that they could be detected only by mammography. In any screening program, the first screening yields the largest number of cancers: 55 women of the 10,000 in the Hawaii project were found to have breast cancer during the first screening round (which took two years) and 41 during the second round. An average of 30 women were diagnosed annually thereafter, bringing the total to 181.

There is no question that mammography is a screening technique that can save lives. In these women, diagnosed with very early breast cancer, the five-year survival rate is 96%. This is very much better than the five-year survival rate of 71% in women with larger cancers and cancers that have spread to the lymph nodes.

False Negatives and False Positives

Screening techniques are still not perfect. Even with the best available skills and technology, and screening as frequently as every year, 13% of these 181 cancers were undetectable at screening but became evident within a year. At the same time, a high percentage of breast biopsies or aspirations, done as a consequence of the screening, turned out to be negative for cancer. Therefore, some women who ultimately are proven to be

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free of breast cancer may, because of suspicious findings on palpation or mammography, undergo emotional stress and the expense of biopsy, only to discover that the abnormal finding is *not* a cancer. On the other hand, a normal mammogram or a negative aspiration or biopsy may greatly allay fears about the presence of breast cancer.

Screening Intervals

The question of what is the appropriate interval between mammographic examinations is still needs further evaluation. Recent studies in the Netherlands have shown an improved five-year survival rate, when screening mammograms were done 18 to 24 months apart. Of course, more cases could be diagnosed at an earlier stage if screening were done as often as every 12 months, but, so far, a 12-month interval between examinations has not been accepted by the majority of physicians or by women. Ten out of 11 women feel that X-ray examinations are probably too hazardous and too expensive to be worth the potential benefit. How often to have screening mammograms will depend on individual circumstances and the willingness of both individual and society to pay for such examinations.

The true cost of a set of screening mammograms, under optimal conditions, is close to $50. However, the chances of finding a cancer in women at random risk are only about two out of 1,000. It ends up costing society approximately $25,000 per discovered breast cancer in women who have no signs or symptoms! This figure includes, in addition to screening mammograms, costs such as biopsies for false positives, extra office visits, and so forth, which amount to an average of about 10 times the initial mass screening cost. Obviously, we still need better ways to identify women at increased risk, and we need better and less expensive ways of detecting breast cancer, especially early and potentially curable breast cancer. Most of all, we need to know how to *prevent* breast cancer, which is only a faint hope at present.

What Can a Woman Do?

Until we can answer precisely the question of prevention, women can, for now, reduce the risk of breast cancer by following a general guideline for good health. Substances that are known to have detrimental effects on general health should be avoided. For example, it is known that fat women and women who eat a high-fat diet are more apt to develop breast cancer. This suggests that a balanced diet without excessive calories, particularly as fats and oils, may not only benefit total well-being but also result in lowering the risk for breast cancer. Regular exercise and recreation

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Incidence of Non-melanoma Skin Cancer in Kauai During 1983

Jenny L. Stone, MD;* George Reizner, MD;** Joseph Scotto, MS;†† David J. Elpern, MD;* Evan R. Farmer, MD;† Rhonda Pabo, RN*

Data were collected on all patients presenting with basal cell carcinoma, squamous cell carcinoma, or Bowen's disease on Kauai during the year 1983. All diagnoses were proven by biopsy.

Kauai's non-melanoma skin cancer (NMSC) incidence is at least twice that reported in any area in the Mainland U.S.A. This fact is certainly due in part to the high solar exposure rates in Hawaii, both on the basis of geographic latitude and a predominantly outdoor lifestyle. Roughly 90 percent of the patients studied were Caucasian and 10 percent were Japanese.

During 1983, one percent of Kauai's total Caucasian population presented with NMSC. Ony 25 percent of the patients were picked up by non-dermatologists, indicating a need for primary-care providers to be more aware of skin cancer screening.

NMSC carries with it significant morbidity and mortality if not caught in early stages. With such a staggering incidence rate in Hawaii, NMSC must be thought of — and screened for — more carefully by Hawaii's physicians.

Introduction

Accurate estimates of the incidence of cutaneous malignancies are usually difficult to obtain because, with the exception of melanoma, these lesions are not reportable to tumor registries. Yet skin cancers are common and cause significant morbidity and occasional mortality.[1, 2] To date, few rigorous studies of non-melanoma skin cancer (NMSC) incidence have been performed in the United States. Those studies, done in the 1970s, documented the incidence of NMSC in Caucasians in several geographic areas, all within temperate latitudes.[3, 4]

Kauai, the most westerly of the major Hawaiian islands, is situated at about 22 degrees north latitude. Its population of 39,082, of which 29 percent are Caucasian,[5] embrace a typically Hawaiian outdoor lifestyle. Kauai's location and prevailing lifestyles closely parallel those in Queensland, Australia, where the incidence of skin cancer is purported to be the world's highest.[6] The island of Kauai is served by a small, relatively close-knit group of medical practitioners and by one central pathological laboratory. Therefore, the logistics for forming a central registry for skin cancers were simplified.

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Materials and Methods

An island-wide survey of skin cancers was conducted on Kauai during Jan. 1 through Dec. 31, 1983. Basal cell carcinoma (BCC), squamous cell carcinoma (SCC), Bowen's disease (BD), melanoma, and keratoacanthoma (KA) were included in the study. This report will concentrate on NMSC under whose aegis we included BCC, SCC, and BD. We recognize that some authorities do not include BD with NMSC. However, we feel that in-situ tumors, which are etiologically similar to other cutaneous malignancies and may progress to invasive carcinoma, should be included.

Patients' tumors were included only if they fulfilled all of the following criteria:

1—The clinical diagnosis and skin biopsy were both done in 1983.

2—The lesion was biopsied and processed for histology.

3—The histology was reviewed and the diagnosis was corroberated by an independent dermatopathologist (ERF).

4—The histopathological diagnosis was one of the tumor types cited above. Those tumors with a pathologic diagnosis of basosquamous cell carcinoma were included with BCC.

5—The tumor was clearly not a metastatic lesion.

6—The tumor was not a recurrence from a previously treated skin cancer.

7—The patient's permanent address, based on zip code of residence, was on Kauai.

Multiple tumors on patients were accepted only if it was certain that they were independent and distinct from each other anatomically and/or histologically.

Each patient submitted to a standard questionnaire. Rarely, the information was obtained from first-degree relatives or from the patient's chart (i.e. in case of death, senility or language barrier). A database was then constructed from the questionnaires.

Physicians participating in the study were coded by specialty.

Results

During 1983, 131 Kauai residents fulfilled our rigid criteria for lesions which were included in the registry. Eighty-nine had BCC, 24 had SCC, 12 had BD, 18 had KA and five had melanomas (some patients had more than one tumor type). As melanoma and keratoacanthoma were excluded from this study, 118 patients remained that had NMSC (Table 1).

Tumor incidence (crude rate and age-specific rate) for Caucasians and Japanese on Kauai are given in Table 2. Crude rates were calculated using 1980 Census statistics for the population of each ethnic group on Kauai.[5] The age-specific rate for Caucasians excludes the 39 percent of Kauai's Caucasian population that are under age 25,[5] the age group that does not get NMSC. The small number of Japanese make the significance of the figures for Japanese patients questionable. However, the fact that they are roughly an order of magnitude smaller than those for Caucasians, is significant.

Table 3 shows Kauai's incidence of BCC and SCC in Caucasians compared

with reported incidences in Caucasians in other parts of the U.S.[3] All incidence figures were calculated using 1970 Census figures as standards. Therefore the crude rate for Kauai differs slightly from that in Table 2. The figures for all the other areas cited are annual incidences/100,000 based on data collected 1977-78. The standard error in the present study is much higher than that for the other areas of the U.S., due to the small numbers involved in the Kauai study. However, the figures are useful for general comparison.

Figures 1-3 show the age-specific incidences of Caucasian patients with BCC, SCC and BD, respectively. 1980 Census figures were used in these calculations.[5] Naturally, each patient is counted only once in each category. The small numbers of non-Caucasian patients did not warrant similar calculations for other ethnic groups.

In examining the number of tumors each individual had, it was found that 76 percent of the patients had one tumor, 13 percent had two tumors, 8 percent had three to five tumors, and 3 percent had six or more tumors.

Figure 4 depicts the specialties of physicians who made the diagnoses of NMSC.

Discussion

There are reported to be between 400,000 and 500,000 new cases of BCC and SCC each year in the United States.[3] The number is meaningless when applied to specific geographical areas, because the incidence of these largely environmentally induced carcinomas varies tremendously with latitude, elevation, ethnicity, hours of sunlight per year, and the occupations and lifestyles of the at-risk population. Our age-adjusted incidence for BCC and SCC is over twice that of New Orleans, 2½ times that of New Mexico and almost five times that of Seattle.[3]

Clearly the incidence of NMSC on Kauai is significantly higher than reported incidences anywhere on the Mainland U.S.[3,4] Although NMSC is treated casually and felt to be of no real consequence by some patients and physicians, in the past few years on Kauai we have seen greater mortality and morbidity from these tumors than from melanoma. This is a small sample, but other reports have shown the yearly number of deaths from NMSC to be roughly equal that for melanoma.[1] Based on our experience and that of others,[3] there appears to be sufficient reason to call attention to the dramatically high incidence of NMSC and to stimulate search for early, easily treatable lesions.

Almost 90 percent of NMSC patients were Caucasian. However, 10 percent of those in the study were Japanese. Although there were not enough Japanese patients in this study to generate signifi-

TABLE 1

Ethnic Distribution of Patients with NMSC

Ethnic Group	BCC	SCC	BD	NMSC
Caucasian	80	19	11	103
Japanese	7	4	1	12
Filipino	1	1	0	2
Part-Hawaiian	1	0	0	1
Total Number of Patients:	89	24	12	118

Note: Some patients had more than one tumor type and are therefore counted once in each pertinent category. However, for NMSC, which is BCC, SCC or BD, each pt. is counted only once.

TABLE 2

Incidence of NMSC on Kauai
(Using 1980 Census Data)

Ethnic Group	B C C & SCC/100,000/yr.	B C C , S C C & BD/100,000/yr
Caucasian		
Crude Rate	812	891
Age-Specific Rate for pts. > 25 y/o	1319	1460
Japanese		
Crude Rate:	115	125

Note: If a patient had more than one tumor type, she/he would only be counted once for these figures.

TABLE 3

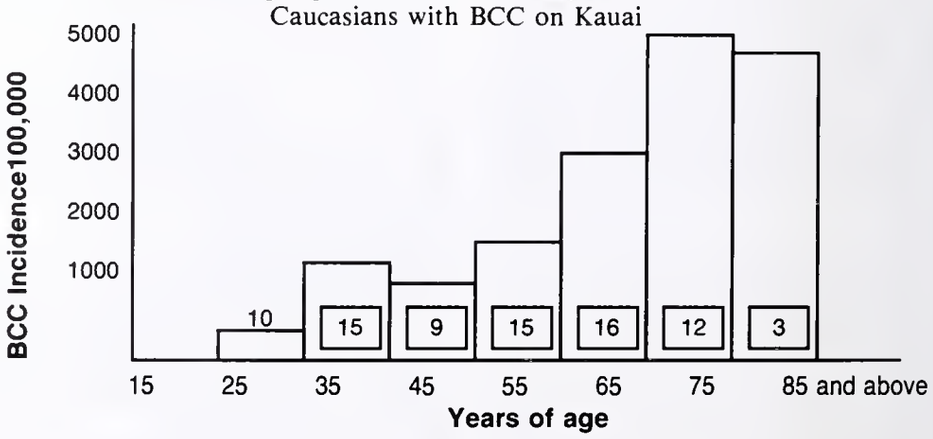
BCC or SCC Incidence/100,000 for Caucasian in other Areas of U.S. Compared with Kauai
(1970 U.S. Standard)

Area:	Seattle	San Francisco	N. Mexico (State)	New Orleans	Kauai
Degrees Latitude	47.5N	37.8N	35.1N (Albuq.)	30.0N	22.0N (Lihue)
Crude Rate	200.6	248.7	295.6	399.4	757.6
Rate Age-Adjusted	188.7	218.6	336.7	384.2	905.5
Standard Error	8.0	5.4	11.7	14.3	100.1

Note: 1977-78 figures used for Seattle, S.F., N.M. and New Orleans.

FIGURE 1

Age-Specific Incidence/100,000 for Caucasians with BCC on Kauai



Note: Actual number of patients in each age group denoted by number inserted in each bar.

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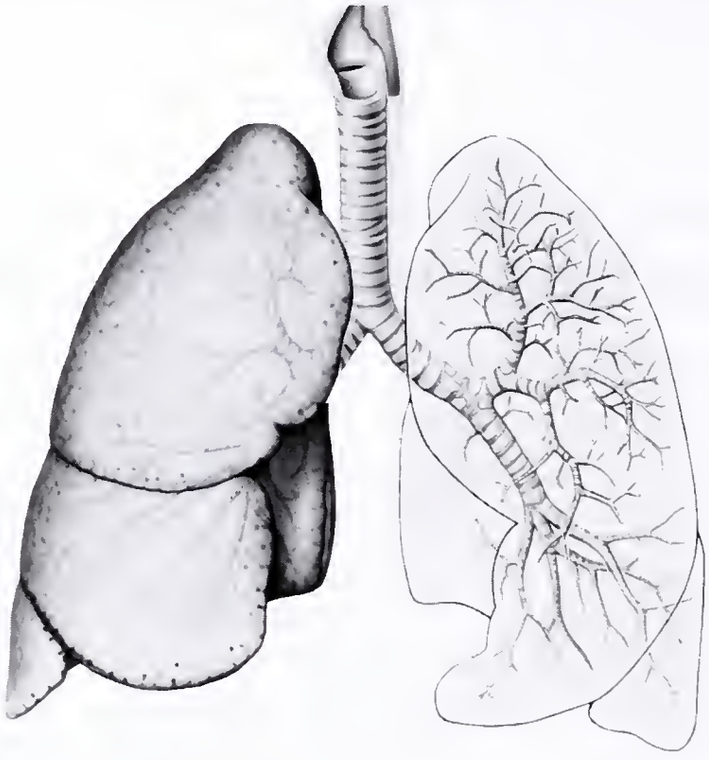

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- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
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- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, erythema multiforme, serum-sickness-like reactions): 1.5%, usually subside within a few days after cessation of therapy. These reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
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cant figures for comparison with Caucasians, it does appear that NMSC in Japanese is not rare. A detailed study on NMSC in Japanese patients in Kauai from 1983 through 1984 has been submitted for publication.[7] That study found that the crude rate of NMSC in Japanese living on Kauai was 107/100,000, which is 76 times higher than corresponding rates for Japanese living in Japan.

NMSC, in particular BCC, begins to emerge in the Caucasian population of Kauai between the ages of 25 to 30. Other studies[3, 4] show similar figures. However, these studies also show only a few BCCs in the 35-to-44 age group and a sharply increasing incidence with each ensuing decade. Usually a difference of an order of magnitude exists between the incidence of the 35-to-44 age group and that of the 75-to-84 age group.

The present study shows a high incidence of BCC in the 35-to-44 age group. The incidence rate stayed fairly steady through the age of 64, then it just about doubled in the 65-to-74 age group and increased again by about 60 percent for ages 75 and older. This may indicate that the latent period for BCC at 22 degrees north is roughly 30 to 40 years, and once this period of time is exceeded there is not great increase in frequency of these tumors.

One would wonder if the influx of retired Caucasians from the Mainland (where incubation times for BCC are undoubtably longer) accounts for some of the increase in incidence in ages older than 65. Interestingly, the aforementioned study of Japanese residents of Kauai found that BCC (and other NMSC) begins to appear at around age 60 for those patients.[7] Numbers from the present study, though not enough to be significant, supported that observation. This suggests that the latent period for BCC in Japanese is considerably longer, possibly twice as long, than that in Caucasians.

The bulk of the tumors seen in patients age 30 to 50 were BCCs. SCC does not appear with regularity until the sixth decade in Caucasians. This may reflect a lowered rate of malignant transformation of actinic keratoses (AK) to SCC than is generally quoted. The literature states that the average time from the development of an AK to SCC is 10 years.[8] However, AKs start to appear in the middle 20s, and SCCs are not common before age 50. This would imply a longer quiescent period and perhaps less of a need for aggressive therapy in younger patients.

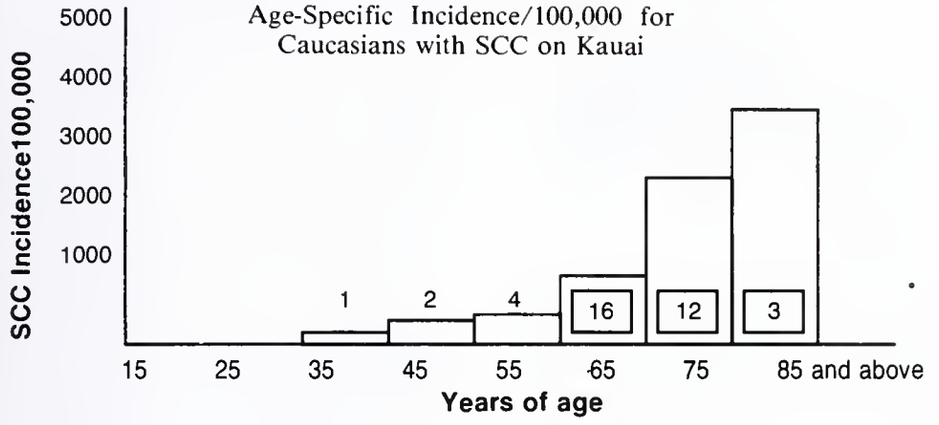
Twenty-five percent of the patients seen in the one year of this study had multiple tumors or multiple tumor types. It is clear that close follow-up of NMSC patients is mandatory because they are at risk for the development of new cutaneous malignancies. A careful general skin exam should be done at regular intervals on all patients with a history of NMSC in addition to checking the surgical site for signs of local recurrence.

Three-quarters of the patients in the registry were diagnosed by dermatologists. Patients referred to dermatologists for specific lesions which turned out to be NMSC were credited to the referring physician for statistical purposes. General surgeons, the surgical subspecialists, internists, and family practitioners each saw roughly 5 percent of the tumors.

This may indicate a lack of awareness or a low index of suspicion on the part of

FIGURE 2

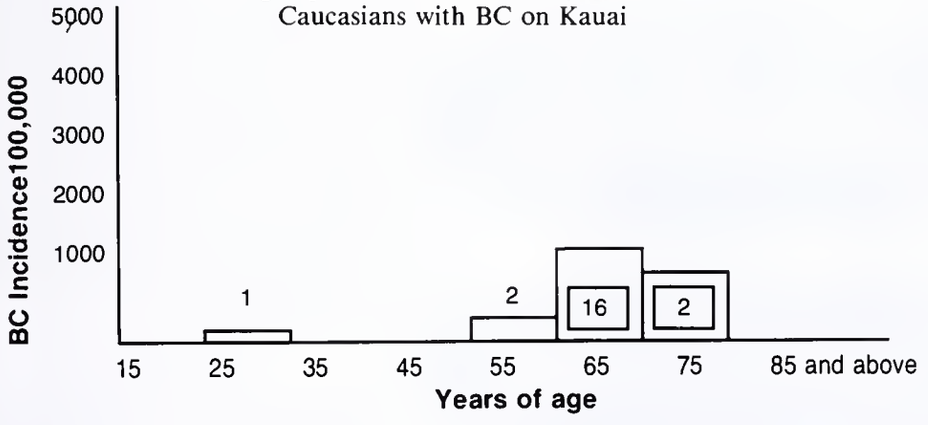
Age-Specific Incidence/100,000 for Caucasians with SCC on Kauai



Note: Actual number of patients in each age group denoted by number above or inserted in each bar.

FIGURE 3

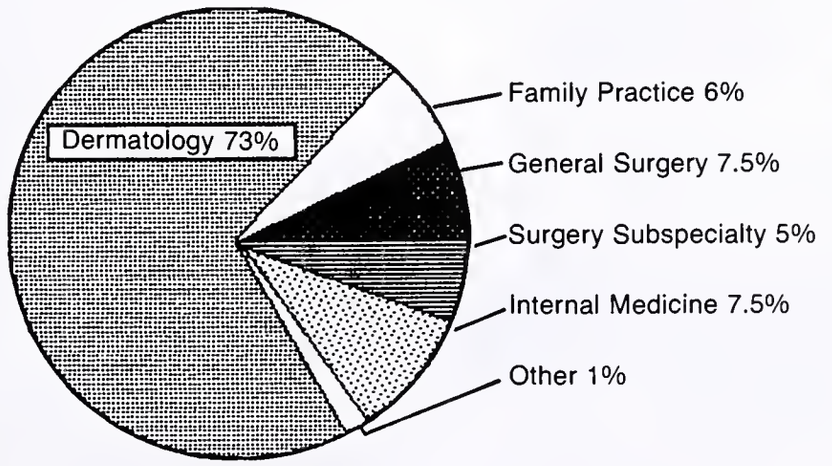
Age-Specific Incidence/100,000 for Caucasians with BC on Kauai



Note: Actual number of patients in each age group denoted by number above or inserted in each bar.

FIGURE 4

Specialties of Physicians Diagnosing NMSC on Kauai



the general medical community for the early signs of NMSC. We feel that the subtle nascent stages of NMSC are recognizable if the examiner does a thorough cutaneous exam and biopsies suspicious lesions or sends these patients to a dermatologist or surgeon for biopsy. The already-high incidence of NMSC on Kauai would undoubtedly be higher if primary-care physicians were more on the lookout for NMSC.

In conclusion, greater than 1 percent of the "at-risk" Caucasian population of the island of Kauai was diagnosed as having NMSC in 1983. Kauai's incidence figures are higher than those reported in any previous study. The high incidence is certainly due in part to the high rate of solar exposure in residents of the Hawaiian islands, both the result of the latitude of Hawaii and the predominantly outdoor lifestyle of many of the inhabitants.

However, a second factor in the high incidence is the fact that Kauai is a unique, isolated, demographic laboratory, and a study of non-reportable tumors can be done with relative ease. Even so, for the year in question, the actual incidence is undoubtedly higher than the observed number, because patients who refused biopsy or who were not biopsied (e.g. terminal patients found to have incidental BCC were not subjected to biopsy) were not counted. Also, an unspecified number of patients chose to obtain their medical care in Honolulu.

Thus, the problem of NMSC is a major one. A significant proportion of the population is at risk. Since these tumors are easily treated in their early stages by very simple methods, it behooves physicians to learn to recognize these tumors in their earliest stages.

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Acknowledgment

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SURVEY REPORT: 35.3% of Hawaii Medical Journal subscribers play golf.

EAR "TUBE" OPERATION MAY BE UNNECESSARY WITH PROPER ANTIBIOTIC MANAGEMENT, TREATMENT AND PROPHYLAXIS — Beecham Labortories — Charles D. Bluestone, MD, director of the Otis Media Research Center in Pittsburgh, Pa., says that the insertion of "tympanostomy tubes" has become the common surgery performed on children in the United States, prompting some physicians to call it the "tonsillectomy of the '80s." The average cost of each procedure is $1,000. The tubes are used primarily to ventilate the middle ear after fluid has been removed in an effort to prevent permanent hearing loss and scarring in the middle ear. The tubes often are inserted after many courses of antimicrobial therapy have failed to cure recurrent ear infections. "The use of the right antibiotics should result in a reduction of the number of patients subjected to tympanostomy tube surgery." Such an antibiotic is now available. AugmentinR (amoxicillin/clavulanate potassium) combines the world's first beta-lactamase inhibitor — clavulanate potassium — with amoxicillin. The new antimicrobial was developed and is marketed in the United States by Beecham Laboratories of Bristol, Tenn.

U.S. AIDS UPDATE — Between June 1, 1981, and Jan. 13, 1986, physicians and health departments in the United States notified the Centers for Disease Control of 16,458 patients (16,227 adults and 231 children) meeting the acquired immunodeficiency syndrome (AIDS) case definition for national reporting. Of these, 51 percent of the adults and 59 percent of the children are reported to have died, including 71 percent of patients diagnosed before July 1984. The number of cases reported each six-month period continues to increase although not exponentially, as evidenced by the lengthy case-doubling times.

AMA HAS GIVEN TALKING POINTS A NEW LOOK. The publication comes to HMA's Jonathan Won, who thinks it's great. The February issue describes what Congressional Senate rules the committee has been discussing — campaign financing. We quote: "A number of senators used the hearing as an opportunity to attack PACs, inaccurately viewed as the villain behind increased campaign costs." Anyone interested in details of what was said in that hearing may contact Jon Won.

REVISED NHBPEP STATEMENT ON DEVICES USED FOR SELF-MEASUREMENT OF BLOOD PRESSURE — National Heart, Lung, and Blood Institute — The state of the art regarding devices for the self-measurement of blood pressure is represented in this newly released statement available from the National High Blood Pressure Education Program (NHBPEP), 120/80 National Institutes of Health, Bethesda, Md. 20892. The reliability of stationary or coin-operated devices is considered limited. Users of these devices are encouraged to seek professional advice before taking any action as a result of a blood pressure reading from one of these machines.

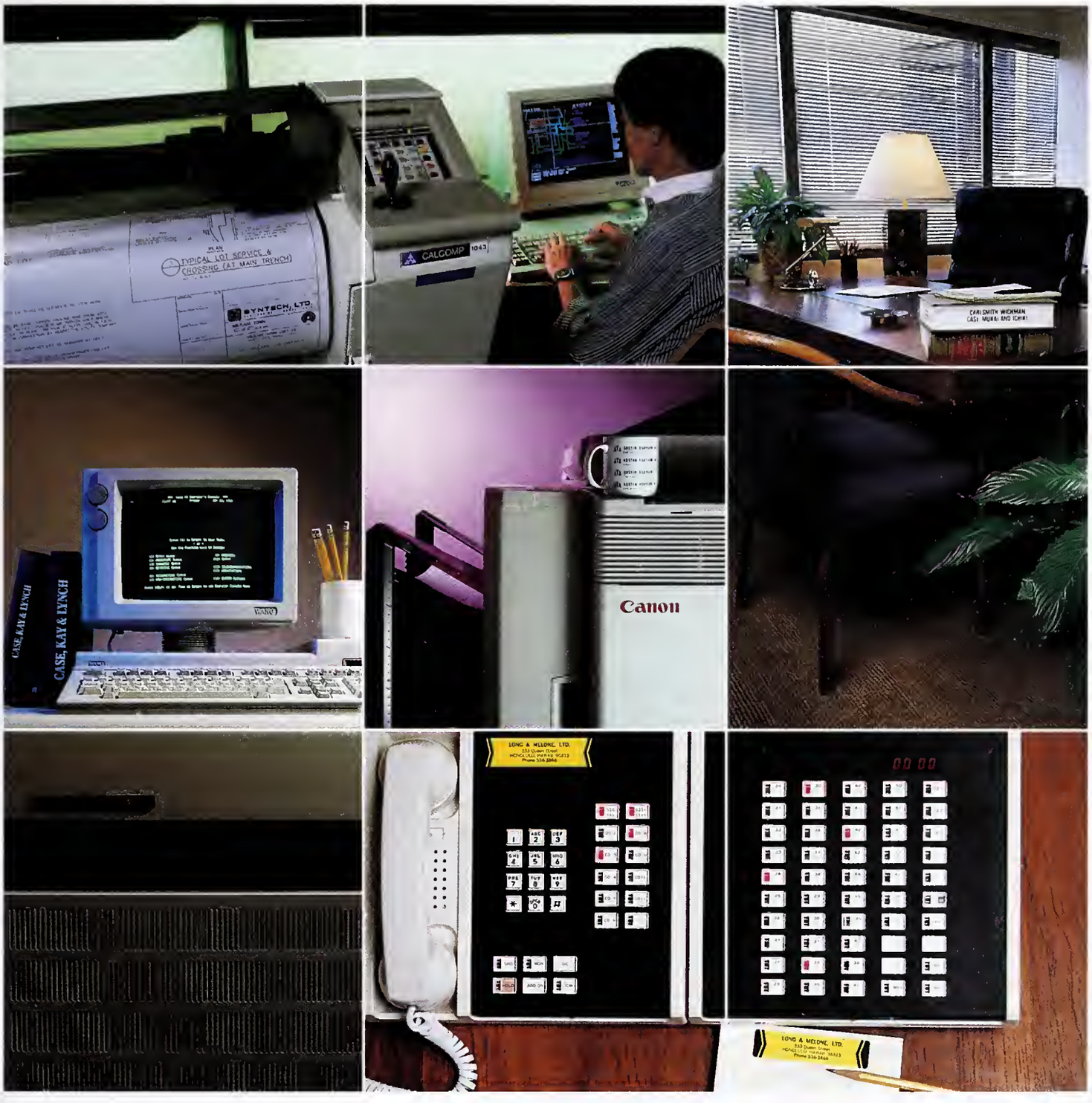
HOSPITAL RECYCLES BLOOD FOR HEART SURGERY PATIENTS — American Hospital Association — Concerned about the safety of the blood supply and the potential for periodic blood shortages, Fairfax Hospital, Falls Church, Va., recently began to recycle this life-giving fluid. Using a new technique called cardiotomy reservoir chest drainage, physicians have been able to recycle more than 85 percent of the blood typically lost during open-heart surgery. This has been accomplished by pumping the hemorrhaging blood from the chest cavity through a filter and back into the patient's chest cavity.

DENIS FU, EDITOR OF MAUI COUNTY MEDICAL SOCIETY'S COUNCIL CAPERS, puts out an interesting and homespun page or two regularly. The publication goes to members of the Maui County Medical Society, but he has given us permission to excerpt a pearl or two to put in our JOURNAL (he began these "capers" in 1981):

> "Hi-O-Silver-Away. . . . Oh, not again! Yep, the HMA (Council) met again like clockwork on March 7, 1986, in Honolulu. . . . After a chop suey dinner of a mixture of Hawaiian, Chinese and Japanese 'buffet' the meeting was called to order" (by Maui's Russ Stodd/Ed.).

HALF OF THE 56 STUDENTS ADMITTED TO MEDICAL SCHOOL AT THE UNIVERSITY OF HAWAII THIS YEAR WERE RE-APPLICANTS, and Dr. James W. Linman, chairman of admissions, believes he may discern a trend toward somewhat fewer acceptances of first-time applicants.

This year's entering class revealed the expected undergraduate concentration in the sciences (27 in biology alone). It is composed predominantly of Hawaii residents (53) who attended Hawaii high schools (47) and more than half of whom (35) did their undergraduate work at the University of Hawaii.



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(Continued from page 275)

with weaker cardiovascular side effects, such as trazodone or amoxapine, or to use an antidepressant with a cardiovascular effect which does not exacerbate the pre-existing problems. Trazodne has been found to aggravate ventricular irritability and may induce tachycaardia and premature ventricular beats. This drug, therefore, should be avoided in patients with myocardial irritability.[19] Imipramine and probably other tricyclics, however, have a quinidine-like antiarrhythmic action,[20] and can be used in patients with ventricular tachycardia or premature contractions. Studies have shown that treatment with imipramine prevented the induction of ventricular tachycardia and reduced ventricular premature contractions.[21] Antidepressants may also cause orthostatic hypotension — imipramine is the biggest offender and nortriptyline the least. A profile of the side effects of commonly used tricyclic and tetracyclic antidepressants are listed in Table 5.

Tricyclic antidepressants should be used with extreme caution in conjunction with the chemotherapeutic agent procarbazine — a monoamine oxidase inhibitor (MAOI) — since the combined use of these two types of drugs could cause a hypertensive crisis. In some hypertensive patients treated with the antihypertensive drug clonidine, concomitant therapy with a tricyclic antidepressant can interfere with the successful lowering of blood pressure.[22] Delirium occasionally develops in older patients due to anticholingergic side effects, especially in those receiving other drugs with anticholinergic effects, e.g., atropine, scopolamine and antihistamines.

Psychostimulants, e.g. dextroamphetamine or methylphenidate, are sometimes used in cancer patients who are in the terminal phases of illness. Detroamphetamine may improve appetite and promote an increased sense of wellbeing; dosage starts at 2.5 mg bid and is increased as tolerance develops. Amphetamines can also be used to potentiate the analgesic effect of opiates. Tricyclic antidepressants are also useful in reducing pain and potentiating the effect of narcotic analgesics. While the initial assumption was that the analgesic effects of these tribyclics resulted indirectly from the improvement in depression, it now appears that they have a separate analgesic action, possibly mediated through endorphins.

Coping with Cancer

Several recent studies have been concerned with the ability of patients to cope with cancer as an illness. Yates and associates looked at the influence of religion in coping with cancer and found that religious belief was positively correlated with life satisfaction and lower levels of pain. Religiosity, however, did not correlate with survival time.[23]

Three prospective studies evaluated the influence of coping styles on survival time. All three came up with consistent, but rather unexpected results.

Rogentine and associates used psychological scale in an attempt to discriminate between malignant melanoma patients who relapsed from those who did not relapse one year after treatment. They found that patients who expected more difficulty adjusting to their illness had longer survival times. Depression scores did not predict future relapse.[24]

In another study,[25] 100 radiotherapy outpatients were given psychological tests and asked to rate the seriousness of their illness. At two-year follow-up, data analysis revealed that men who died had rated their conditions as significantly less serious than either the women who had died, living women, or living men. The Locus-of-control scores, which measure the degree to which one feels in control of one's own destiny, did not differentiate between survivor and non-survivor groups.

The third study, by Derogatis and associates, correlated psychological test results with survival in 35 women with metastatic breast cancer. They found that long-term survivors were more symptomatic, particularly in terms of anxiety, alienation, depression and guilt. Short-term survivors exhibited less hostility and a more positive mood. Furthermore, the treating physician perceived the long-term survivors as adjusting less well to their illness than the short-term survivors.[26]

All three studies found that patients who seemed to have greater difficulty adjusting to cancer survived longer. Behavior that physicians consider to be compliant and indicative of "a good patient" may not be the most optimal for the patient's survival.[27]

Summary

The care of cancer patient should include promoting the psychological wellbeing and quality of life of both the patient and his or her family. Detecting depression when it occurs as a severe complication and treating it adequately, can add significantly to the patient's ability to tolerate both the cancer and its treatment.

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(Continued from page 278)

IFN clinical trials.[11] The main objective of this protocol was to minimize this hyporeponsiveness by utilizing a lower dose of IFN intermittently over longer periods.

This study did demonstrate an initial augmentation of NK (K562) activity during the first week of IFN administration. However, this augmentation was not maintained and was followed after the first week with a decrease either to pretreatment levels or below. Similar results have been reported.[1, 5, 6]

In this preliminary report, the extent of the decrease seen appeared related to the type of cancer being treated. Breast cancer patients had greater decreases in NK activity to the leukemic cell, K562. NK to the herpes virus-infected targets showed no initial augmentation with decreased activity noted during therapy to levels below our normal donors' range. This decrease was not as great as that observed by Maluish et al.[13]

Our preliminary results suggest that this IFN protocol at a dose of one million units, three times a week, did not result in as severe a degree of hyporesponsiveness in NK activity as reported in some clinical trials using high repeated IFN doses. In a renal patient who completed four cycles of IFN therapy and showed stabilization of disease, NK (K562) function was maintained at the pretreatment baseline level while NK (HSV-1) showed a gradual increase in cytoxicity. In addition, lymphoproliferative response (LPA) to the polyclonal mitogen PHA as measured by 3D-thymidine incorporation was maintained throughout IFN therapy at the same pretreatment baseline level in this patient.

Future studies should be done with protocols designed with different IFN dosage levels above the one million unit level. The appropriate higher dosage levels may result in further enhancement since *in vitro* pretreatment with IFN of renal carcinoma patients' lymphocytes demonstrated further augmentation of NK activity. The two breast cancer patients with a trend toward decreased NK activity, showed no significant boosting of NK (K562) activity after *in vitro* IFN treatment. Increasing the dose of IFN may have no effect on the immunological response in these breast cancer patients but may have no effect on the immunological response in these breast cancer patients but may benefit the renal cancer patients currently treated.

Definitive clinical correlations of efficacy cannot be made at this time since these cancer patients had varying degrees of advanced metastases with heavy tumor burden. In two renal carcinoma patients, disease stabilization in the size and numbers of pulmonary metastases was observed. Liver and bony metastases progressed in both the renal and breast carcinoma patients. This dosage level appeared to be tolerated fairly well in the patients unless there were liver metastases. During IFN therapy significant increases in SGOT and LDH levels were observed in a patient with liver metastases.

In summary, the present study suggests an immunomodulatory effect on NK function with this IFN administration regimen. Trends seen in the levels of the NK subpopulation to the herpes virally infected fibroblast and its biological relevance in cancer need to be analyzed in additional patients and followed clinically over a longer period. This IFN protocol was shown to maintain or augment NK activity dependent on the targets used and would prove important if IFN treatment were to prove useful in adjuvant or combination therapy with various chemotherapeutic agents.

In certain solid tumors which have not responded as well to IFN therapy, Herberman[7] has proposed that patient's NK cells be activated *in vitro* to proliferate with interleukin-2 and reinfused into patients. These activated killer cells would then kill tumor cells. Rosenberg et al.[18] has recently reported tumor regression in 11 out of 25 patients receiving adoptive immunotherapy with lymphokine activated killer (LAK) cells in addition to treatment with r-IL-2.

Our Hawaii-BRM research laboratory has initiated *in vitro* studies with r-IL-2 in order to provide this adoptive immunotherapy to cancer patients in Hawaii. Our *in vitro* activation of patients PBM with r-IL-2 has shown that NK cells and other effector cells are activated to kill more effectively NK-sensitive as well as NK-resistant tumor targets (unpublished observations). Continued studies with IFN, IL-2 or other newly developed Biological Response Modifiers should be continued in selected cancer patients with limited tumor burden or minimal disease where therapeutic efficacy is more likely as adjuvant or combination therapy.[10]

ACKNOWLEDGEMENTS

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Breast Cancer

(Continued from page 280)

contribute to weight control by burning up calories and providing a means of managing stress. Ineffectual management of stress does lead to overeating.

Affordability of Screening Mammography

The cost of mass screening for breast cancer is, in our opinion, still too high. As stated above, the actual cost of taking and interpreting a set of screening mammograms under nearly optimal conditions is about $50. By contrast, the cost of *diagnostic* mammography (when there is a suspicion of cancer) is about twice as much as *screening* mammography, but is often covered in part by insurance plans. The answer to high cost is neither government subsidy nor insurance coverage. Either course would merely shift costs, rather than reduce them.

Several factors influence the cost and hence the affordability of screening examinations for breast cancer. First and foremost, the cost of the test itself: Not only is the mammography equipment expensive ($70,000 or so), but so are the necessary services of highly trained personnel. Additionally, there are the expenses involved in following up suspicious findings, which often prove to be benign. Second, the frequency of screening: Annual screening can be more than a lot of women can afford. Finally, the site: The track record suggests that low-cost screening services are more likely to be available in a nonhospital setting or a facility that is specially set up for such services, utilizing volunteer help and other community support mechanisms, rather than a hospital or a private radiological laboratory.

Another factor to be considered is that the lack of any effective method of identifying women at high risk means that all women must be considered as at risk. Although there is a relatively high probability of a woman developing breast cancer during her lifetime (one in 11), there is a relatively low probability of her developing it in any one year (one in 400). Therefore, the *ideal* screening test for a disease such as this one would have to be very inexpensive so that it can be utilized repeatedly by all women over age 40. Unfortunately, such a test is not yet available. However, using the tests we do have, the BCDDP has demonstrated several cost-effective techniques of screening that reduce costs and increase quality at the same time.

The BCDDP has shown that trained, non-physician examiners can perform screening breast examinations very well. Specially trained technologists can distinguish normal mammograms from abnormal ones, thus permitting the radiologist to focus his attention on the abnormal ones. Women appreciate the opportunity that is also provided, to learn breast self-examination on their own bodies. Palpation and mammographic examinations of good quality require proper training, proper maintenance of the mammographic unit and monitoring of radiation, proper positioning of the screenee and processing of film, interpretation of films, and follow-up of suspicious findings. Moreover, the quality of the procedure depends heavily on the number of exams performed daily. Thus, a facility that keeps its acumen finely honed by a large volume of cases would be the place to have a screening done.

Although research will proceed on the question of optimal frequency and other issues, we feel that screening mammography should be offered to the public, while efforts to lower cost and improve efficiency continue.

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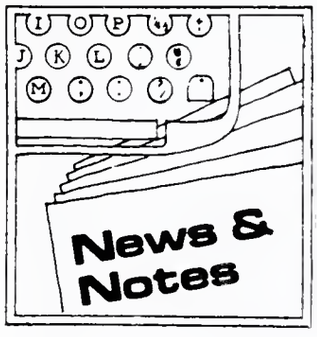

On Again, and Off Again

The Molokai Clinic doctors, who in mid-December disbanded their group practice because of high malpractice insurance premiums (a four-fold increase in premiums), have continued to practice individually. Without insurance, the doctors would lose their right to practice at Molokai General Hospital, but as Paul Stevens says, "In doing this renewal, it's so expensive and kind of wiping us out." Their contract dispute with DSSH has been resolved and there is a chance that the physicians could move their practice to Molokai General as independent physicians and thereby reduce their rent payments. (We await the outcome with bated breath.)

Malpractice insurance at the state's 12 hospitals, including Kona Hospital, expires June 1 and as of the end of April, the Health Department has not been able to secure new insurance. Abelina Shaw, deputy director of health testified before the Senate Health Committee that "the Legislature would have to appropriate the funds to allow the Health Department to pay for the cost of insurance for qualified practitioners in critical areas, especially involving obstetrics. An alternative would be for the Legislature to appropriate funds to allow the State Health Department to hire part-time practitioners qualified in obstetrics. In the event hospital insurance is not obtainable and, the hospital services are to continue, then the state would have to go bare or be self-insured and the assets of the state would then be utilized to pay for potential claims. Abelina lists other alternatives: Air evacuation of OB patients to Honolulu; an extensive recruitment program aimed at bringing in a doctor willing to pay the insurance; transport pregnant women to Honolulu one week before the expected date of confinement; staff critical areas with OB Gyn residents on a rotational basis, with subsidization of insurance; establish living quarters on Oahu for the last three weeks prior to the expected date of delivery; and sponsor foreign-trained physicians who qualify (except for US citizenship, they could practice without malpractice insurance). This insurance problem is acute in Kona and in other rural areas of the state.

The five major hospitals, Queen's Medical Center, Straub, Kuakini, St. Francis, and Kaiser have joined together a second time to buy specialized and expensive high-tech equipment. The first was for the magnetic resonance imaging machine and, more recently, for the ESWL (extra-corporeal shock wave lithotripter) which will be kept at QMC.

Albert Simone, our new University of Hawaii president, has asked the medical school and the college of tropical agriculture to cut their budgets by 10 percent. Other schools and colleges have been asked to take 4 percent to 10 percent cuts. Of the medical school, Simone is convinced that "it is in the best interests of the state to continue operating the school. However, we do not need a large medical school. It should be the smallest one possible while still offering quality education and research." He does not expect the enrollment to be significantly affected by the proposed budget cut.

We were happy to read in Star-Bulletin writer Jeanne Ambrose's article that "a number of studies have shown that a middle-class man living in Hawaii is less likely to suffer a heart attack than the average American. Studies also show Hawaii has the lowest prevalence rate of Type A behavior."

Ray Roseman, associate chief of medicine at Mount Zion Hospital in San Francisco, was here for the three-day program sponsored by the UH medical school and the Cypress Foundation.

Roseman, collaborating with cardiologist Meyer Friedman, wrote the best seller Type A Behavior and Your Heart, and credits Hawaii's lower prevalence of Type A behavior to our environment. "There is no question that if you live in an area that is less rapid in pace and has a warmer climate, you modify your behavior to match that pace. A lot of it has to do with the sunshine and the much more relaxed atmosphere."

More on Tort Reform Issue

On May 30, President Reagan called for passage of an administration bill that would place ceilings on monetary damages and attorneys' fees, and charged that jury awards in personal injury suits have become outrageous. Reagan said the legal process governing liability cases has gone terribly wrong, laws have been twisted and abused and the result has penalized virtually every American. The dispute over "tort reform" has pitted the insurance industry against trial lawyers and consumer advocates, who contend that the alleged liability crisis was manufactured by insurers to increase profit.

Reagan (not being a lawyer), took the side of the insurance industry and said "tort law has become a pretext for outrageous legal outcomes . . . that impedes our economic law, not promote it." Administration-sponsored legislation introduced in Congress would make several major changes in liability law, including limiting awards for punitive damage and for pain and suffering to $100,000, and restricting the amount of lawyers' contingency fees. Reagan said that in the past 20 years, the number of awards involving $1 million or more has climbed from one a year to more than 400 annually.

Between 1975 and 1985, he added, the average product liability award quadrupled to $1.8 million and the average medical malpractice jury award rose more than 350 percent to over $1 million. "These problems have begun to eat away at the fabric of American life. There's still such a thing as common sense. And this ain't it. The time has come for action." (Ed.: We notice that our Gov. Ariyoshi — being a lawyer — also considers tort reforms, but apparently sides with the lawyers and consumer advocates against the insurance companies. Interesting situation.)

Elected, Appointed, and Honored

Wayne Nickens of Maui, founding director of the Maui-based Foundation for National Education on Alcoholism and Drug Abuse (NEAD), was one of six national experts selected by the National Council on Alcoholism to be on a panel for the Annual National Forum on Alcoholism that took place April 19 in San

Francisco. Wayne's paper was titled, "What Does Genetic Predisposition Mean to Children of Alcoholics."

Rodney Kazama, gastroenterologist in Kailua, has been certified by the American Board of Gastroenterology. Ann Catts, medical director of QMC diagnostic laboratory services, was awarded the Alumnae/i Achievement Award at the Homecoming '86 banquet at the Medical College of Pennsylvania. Helen Petrovitch, co-investor in the National Institute of Health's project on systolic hypertension in the elderly, was named chairman of the Hawaii Heart Association's Hypertension Committee.

Frederick Burkle Jr. of Maui will attend the Red Cross-sponsored International Health Care Delegate Training course in Washington. Fred is medical director of Maui Memorial Hospital and a board-certified pediatrician, psychiatrist, and emergency physician, with years of experience in emergency medicine. He has written a text on disaster medicine. Ob-gyn man Clayton Honbo was elected to the Central Pacific Bank's CPB Inc. board. Cardiologist Roy Kamada has been named college governor for the state of Hawaii by the American College of Cardiology's board of trustees.

Nutrition specialist and author John McDougall will join the Honolulu Medical Group. John has two best-selling books: The McDougall Plan and McDougall's Medicine — A Challenging Second Opinion. The American College of Surgeons, Hawaii Chapter, has elected Roy Iritani as president and Harvey Takaki as secretary.

Milton Howell of Hana, Maui, received the "Living Treasure" award in February. The award by the Hongwanji Mission of Hawaii makes Milton one of Hawaii's "Living Treasures" and recognizes his tremendous effort in spearheading a fund drive to buy Kipahulu Valley on Maui for nature conservancy. Incidentally, Milton was Charles Lindbergh's personal physician until the aviator's death. Lindbergh is buried in Hana. (Contributed by Fred Reppun.)

Entrepeneurs

Orthopedist Rowlin Lichter founded an orthopedic rehabilitation center seven years ago. Wife Barbara is company president. CHART (Comprehensive Health & Active Rehabilitation Training) Sports Medicine Systems Inc. has centers in Waipahu and Honolulu and recently opened its fourth franchised Mainland facility in Tulsa, Okla. The other franchises are in California — in Sacramento, Los Angeles, and Santa Monica.

Bernard Portner, director of the neck and back clinic at Straub for the past five years, has opened his own practice specializing in physical medicine and rehabilitation. He is also president of the Hawaii Society of Physical Medicine and Rehabilitation at 615 Piikoi St.

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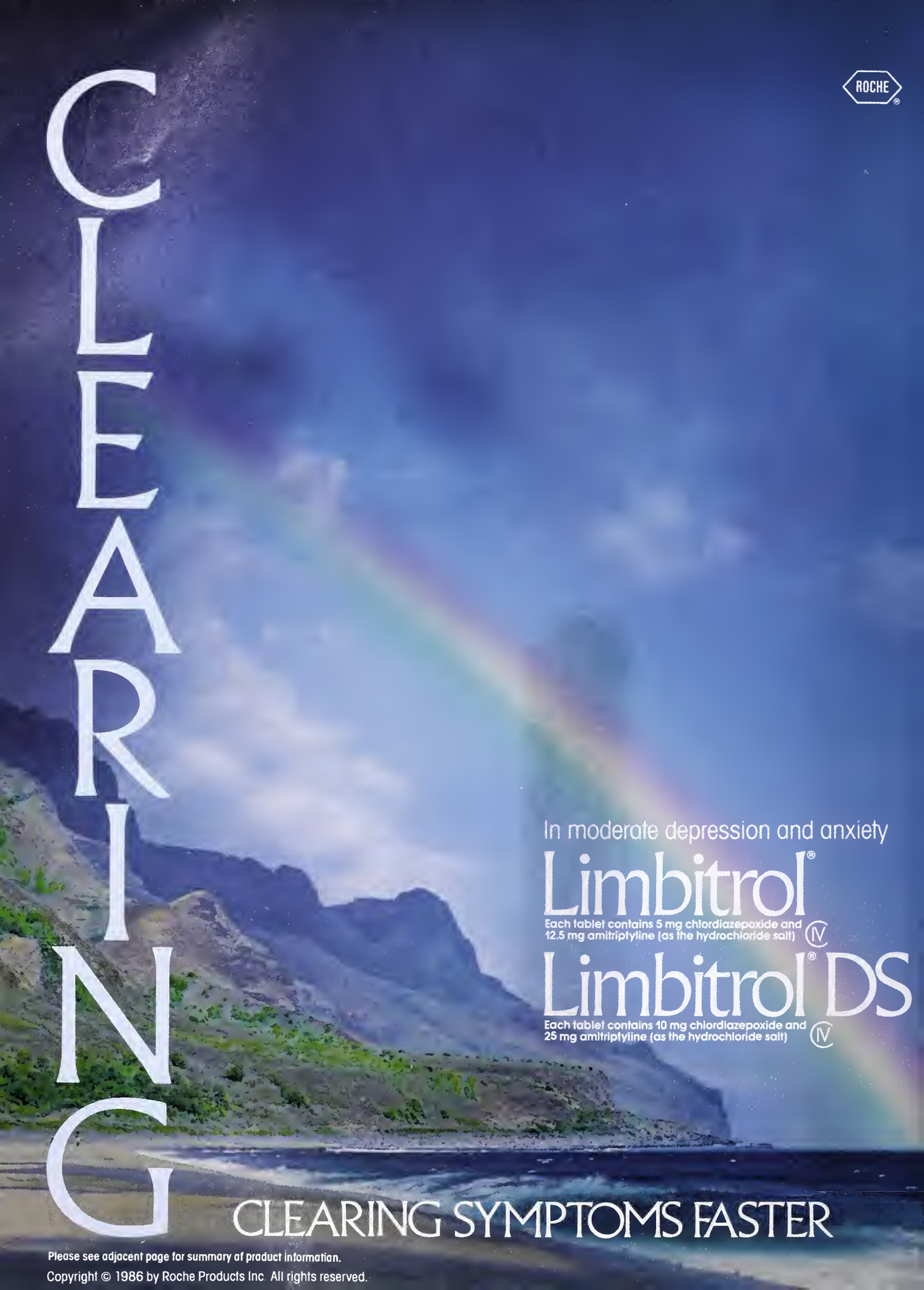

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Ethics in Science

Wolfgang "Pief" Panofsky is the director emeritus of the Stanford Linear Accelerator Research Laboratory and professor of high-energy physics. He has had enough experience over a lifetime of science, tempered by philosophical involvement in its implications to life, to be listened to by us students with a certain degree of awe and respect. He spoke recently at the University by invitation of the local chapter of the Scientific Research honor society of Sigma Xi on the occasion of that society's 100th anniversary, and he chose as his topic "Ethics in Science."

Panofsky was introduced by eminent scholar/scientist John Craven, who reminded the audience that "Pief" once wrote a paper entitled *Man vs. NUTS,* the latter an acronym for Nuclear Utilization of Tactical Systems, after he had been given the job of designing a Polaris Submarine "large enough and effective enough to deter the Soviets."

Panofsky restricted his remarks to the realm of the physical sciences and nuclear energy, but some of his perceptions could very easily have been applied to the medical sciences. This thought kept cropping up in our minds particularly since we had been exposed most recently to Straub's Cardiology Update '86 and the people who are intimately involved with the ethics of heart transplants and artificial hearts.

"Although the scientist is often involved in 'blind' research, meaning that it has no specific purpose or long-range goal but simply is research as a fishing expedition, he or she cannot avoid being aware of the impact on society or on humanism or whatever might evolve as a result of that experiment." Panofsky characterized that attitude, and added: "Scientists are not asked to swear the Hippocratic Oath." He made the point that it boiled down to whether to "communicate," i.e. publicize one's findings. He felt that there should be more freedom allowed scientists along these lines, except that "National Security" controverts such.

"Technology transfer, if restricted, hampers research and therefore progress in the acquisition of knowledge." Panofsky cited the interchange between President Truman and atomic researcher Oppenheimer; the latter could not and would not answer as to what impact "the bomb" might have if detonated over a populated area. (Everyone knows by now what transpired thereafter!)

As another example of the scientist's dilemma, he recalled when Nils Bohr approached Winston Churchill and expressed doubts about the use of the Hydrogen bomb he had invented. Churchill's immediate response on being told Bohr wanted an audience with him was to order Bohr confined as dangerous for having such doubts! And another citation: When Russian physicist Sakharoff spoke in favor of a Comprehensive Test Ban Treaty, Soviet Premier Krushchev had the scientist suppressed forcibly.

Panofsky states unequivocally that half of today's scientists are working for the military in the U.S. However, this had not diminished the amount of basic research that is being done. He deplored the arms race as one of the great tragedies of mankind and that the build-up of nuclear weapons is quite "insane". "And yet," said he, "each step is a rational one in terms of national security. It is the 'symbols', rather than the actual weapons — the tools, if you will — that leads us on." (Isn't that a paraphrase of what President Reagan said to the Congress on his return from the Geneva Summit last November, when he said that it was the presence of the nuclear warheads that "make us distrust each other, rather than lack of trust that makes us develop these weapons"?/Ed)

Scientists, de facto, are citizens of the country in which they live, explained Panofsky; they are citizens of the world secondarily, one must understand. Likewise it is not fair to label funding as "evil," as compared to that which supports "good," meaning moral, research because it is all interconnected anyway.

Panofsky summarized his credo by saying that the scientist's goal should be the increase of pure knowledge that emanates from his research and "never mind what the goal might lead to. Therefore, the scientist should be free to communicate his new found knowledge far, wide and freely."

Still, yet, however . . . Pief Panofsky concluded by advising scientists to be "virtuous." Whatever he meant by that, was obscure. This came from a wise man who is known to have had a considerable impact on the arms race as — Chairman, Committee on International Security and Arms Control of the National Academy of Sciences.

J.I. Frederick Reppun, MD
Editor

This is My Mana'o

Ament the HMA Council Meeting on May 9, what could be more brief or more to the point than Maui Councillor-to-HMA Denis Fu's "Council Caper's" below (with his permission, of course)!

J.I. Frederick Reppun, MD
Editor

Council Capers

There was an HMA Council meeting in April, which I did not report on. As you know, it was a busy month — taxes and closing of the state legislature. Your HMA spent many long hours on your behalf hoping to resolve the many health-related bills, especially tort reform.

Meetings and More Meetings. Yep, just last Friday, I left early in the morning to attend the HMA School Health Committee meeting of which I'm a member. Simultaneously occurring in another conference room was another HMA meeting. You can be assured that the HMA building is a very active place.

And then at 5:30 p.m., President "Lindberg" Stodd rippled the waves and got down to the important business of the evening. He reported on the MIEC Seminar in the Napa Valley of California (hic?) the week before. He gave a very informative summary of the conference. Good job, Russ!

Molokai General Hospital. A task force of HMA members made an on-site evaluation of the hospital, medical staff, and administration, and a detailed, unbiased report was reviewed. Since HMA does not have an official jurisdiction in the matter,

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Beyond the call

no significant recommendations nor conclusions were made.

Our New HMA Building. Dr. Allan Kunimoto reported on the progress of the building which is coming along fine. Since we had a meeting on May 1, 1986 here on Maui about the projections, I will not repeat the proposal, except to say that it is an *excellent* investment.

Your association continues to be active, thriving and continues to act in your interest. Your input, criticisms, and suggestions are always acceptable on a county, state, and national level.

Tip of the Month. Someone asked me to give a tip of the month here on Maui. Well, here goes, Dr. Baum. After trying almost all of the Sunday brunches on Maui, one of the most enjoyable surprises this past Easter was the Sunday brunch at the Kaanapali Beach Hotel. The food selection was excellent and the price very reasonable — $13.50 for a champagne brunch. If you have a better favorite after trying here, let me know.

Denis Fu, MD

The "New" Queen's Medical Center

Fred Pritchard, president of Queen's Health Systems and chief executive officer, made his first appearance before the QMC Medical/Dental Staff on May 6, 1986. Mabel Smyth auditorium looked pretty full with some 200 attendees at 5:00 p.m.

Chief of Staff Jim Stewart conducted the General Staff Meeting that takes place only twice a year. He introduced Pritchard, who has come aboard only since the first of the year with impressive credentials as the result of previously working with a large hospital group in the Pacific Northwest.

Pritchard promptly outlined his plan of administration of the QHS, which includes the QMC, the Queen Emma Foundation and Queen's Ventures Inc. He had already appointed John Schlief as vice president in charge of QMC, Rosalie Kasaba to be vice president of Corporate Development and Larry Smith as vice president in charge of finances.

Ticking off major moves and developments in the making or already accomplished, Pritchard reported that an agreement had been reached whereby the lithotripter would be housed at QMC. Queen's Medical Center, St. Francis, Kuakini, and Straub were the participants and the urologists at those four institutions were in the process of working out details as to their usage. He promised that it would be installed "by August, this year."

Next, Pritchard reported that a proposal to manage Molokai General Hospital had been submitted to the Board of Trustees of that hospital, that represented a citizens' group of paying supporters in a voluntary association that owned the land and the structure. Molokai General Hospital has had to be supported financially by the state for many years, but is an independent community hospital. QMC's management was to be unequivocal and "non-negotiable," he stressed.

Within 60 days, QMC was to implement a Home Health Agency.

Pritchard felt that the parking problem at the medical center warranted top priority in the way of resolution, and that all other contemplated moves and rearranging would have to take a back seat. He also revealed that the new administration necessarily had to review the building plans and construction already in process "with a fresh eye to what would be best at Queen's and what the doctors might feel would be best also." He then had John Schlief, followed by Bernice Smith, patient relations coordinator, flesh in some of the details of the proposed changes at the medical center.

It was refreshing for those of us in the audience to sense a "new" aura of progress and improvement in direction going forward at a rapid pace, yet still carefully enough to allow for sufficient input from affected parties and personnel, under a new team. It must have been particularly pleasing to the members of the M/D staff to note that Pritchard and Schlief both repeatedly emphasized the phrase "with input from the physicians, of course."

We'll have to see it to believe it, but it bodes well at Queen's for starters.

AMA! We're Missing the Boat

On the June 5, 1986 "McNeil-Lehrer Newshour," there was a focus on the New York state's recent legislation aimed at weeding out "the incompetent doctor." The legal thrust of this was directed toward testing for competency at three-year intervals, in order for a physician to maintain his license to practice medicine in his specialty; the method presumably was through CME.

AMA's Executive Vice President, Jim Sammons, MD, was pitted against the New York state director of health, whose last name was Axelrod and who was addressed as "doctor" (we did not catch his full name and suffix, unfortunately). We were unable to watch the very end of the "focus," for which we ask to be excused, but saw enough of it to become more than somewhat disturbed and disappointed with what our AMA was projecting to the general public.

Axelrod pointed out, and Sammons agreed, that there are many circumstances wherein there is little or no peer review, the prime example being the physician practicing only out of his office, not hospitalizing patients under his own name and, therefore, not subject to hospital peer review. Axelrod implied that a CME requirement in the law would solve that problem; but, we know that it will not, because it is too easy to comply with CME offerings and still learn nothing that will change old habits of practice or bring the latest medical knowledge to the care of patients in that practice milieu. We also know that a "test" can be passed and the instant knowledge quickly forgotten. True, this is an indictment of our CME program, but we have earnestly tried to overcome its shortcomings in other ways.

It was agreed by both debaters on the program that many specialty societies now require CME for continued membership and certification. Here in Hawaii, as in some other states, CME is mandatory for relicensing every two years.

It was the program moderators, the inimitable Jim and Robin, who posed the perceptive and barbed question that we hear so often thrown at us in organized medicine: "Why are so few practicing physicians censured or made to lose their licenses in the United States?"

Sammons *did* expound, however, at least while we were watching, on the two major problems troubling our profession in this regard: (1) that it is a disincentive to the throwing of stones when one lives in a glass house — all physicians recognize deep down in our hearts that none of us is infallible -- and, (2) that it is extremely difficult under our legal system to prove incompetency and then to punish for it (it is difficult enough to prove actual malpractice!).

The legal profession has given us very little help whenever we try to police ourselves, yet expects us to act like and be our own lawyers!

J.I. Frederick Reppun, MD
Editor

RE: University of Hawaii

I read with interest your editorial in the HAWAII MEDICAL JOURNAL of May 1986 advocating that the University of Hawaii School of Medicine should include in its curriculum more than just a lecture or two on ethics in the practice of medicine.

It is of some interest that at the time that issue of the JOURNAL was being distributed, Bernice Coleman, MD, was participating in a medical ethics course for our fourth-year students during the final month of the senior seminar just before graduation. This course, which had been in planning for nearly a year, was presented by a number of our senior faculty who participated in both the large-group and small-group discussions that took place over the span of a week. The senior seminar, of which the course was a part, also presented material on medical malpractice, the living will, and a number of other subjects which I am sure would be of interest to you.

We would, of course, be interested in the input of the HMA Council as we begin planning for next year's ethics courses, which will be given to both first- and fourth-year students.

John S. Wellington, MD
Associate Dean, University of Hawaii,
John A. Burns School of Medicine

The Editor Responds:

Thanks, John! We stand corrected and instructed. Hawaii Medical Association members and JOURNAL readers please note.

J.I. Frederick Reppun, MD
Editor

RE: Article: "Male Predominance"

I read with interest the study of Enzenauer et al., "Male Predominance in Persistent Staphylococcal Colonization and Infection in the Newborn."[1] Dr. Enzenauer found a higher rate of follow-up colonization and infection in circumcised compared with non-circumcised males. However, these differences were not statistically significant. Dr. Enzenauer and myself have long had an interest in the circumcision procedure.[2,3] Recently, in a study of 2,502 male infants, we demonstrated a 20-fold increased risk for urinary tract infection in uncircumcised compared with circumcised males (in Hawaii).[4] These findings were corroborated in a group of more than 200,000 male infants.[5]

The association of urinary tract infection with the state of non-circumcision represents a potentially "valid" medical indication for routine performance of the procedure. Because of our finding this association, we have received numerous letters concerning our beliefs and recommendations. I recently received two letters, one from a member of Congress and one from the National Organization of Circumcision Information Centers. Both letters quoted Dr. Enzenauer's findings of increased staphylococcal colonization and infection in the circumcised male and stated that this was "obviously" a reason not to circumcise. Again, this relative increase was not statistically significant. As such, it has no scientific basis for being used as rationale for not circumcising males. I have long been an opponent of the procedure and I strongly believe that there has to be adequate informed consent when counseling parents regarding the procedure. This information has to include the urinary tract infection risk if there is no circumcision. Until there is definite, scientific, *statistically significant* proof that circumcised males are at risk for staphylococcal infections, this information *cannot* be used for part of informed consent counseling.

Thomas E. Wiswell, MD
Major, MC
Chief, Neonatology Service,
Brooke Army Medical Center,
Ft. Sam Houston, Texas

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Re: News and Notes Miscellany Column

News Editor:

I am writing this letter in response to your column of News and Notes in the June 1986 issue of the HAWAII MEDICAL JOURNAL. In general, I enjoy reading your column of infor-

mation, reports of conferences and political developments, and personal items of interest. I like the light and humorous editorial comments you write.

I did, however, find offensive the joke you related in the column under the heading of Miscellany. It is admirable that you inject humor in a traditionally stodgy professional journal, but there are many ways of making people laugh without laughing at the expense of people. I'm sure you would be hesitant about repeating that joke at a workshop for the disabled, but even outside of such a setting it is insensitive to say the least.

I will continue to look forward to your column.

Alan J. Chun, MD

The Editor Responds:

Dear Alan:

I must assume more than a fair share of your criticism of the "wooden eye" joke to which you refer in your letter to the editor above, because as editor, I allowed that particular joke to be left in Henry's News & Notes.

I felt that it would not offend any handicapped person, primarily because, in my experience, such persons often make light of their own misfortune and appreciate a chuckle over it as an expression of understanding and sympathy on the part of another.

As you may well appreciate, humor is invariably linked to tragedy and it makes the tragedy more bearable. Crying and laughing are akin. A pratfall often generates a laugh from the bystander, if not from the victim; but this turns into concern and sympathy if there is real injury.

We physicians share a good many "medical" jokes with each other; very often they emanate from our patients. Faced with the seriousness of the relationship between us and other patients and their perhaps life-threatening woes, it helps us to throw in a little humor, often ribald, often irreverent.

Indeed, HMJ is a medical medium for the eyes of our colleagues. Although its distribution is not "closed," not too many lay people (patients) get to peruse it. It is meant to be a way to communicate with each other.

The editor/censor might be "Victorian and straight-laced," or she or he might be a "crude, uncouth, mind-in-the-gutter" type. I try to be neither. I respect Henry's views and value his input; he trusts me to be the "arbiter elegantarum," and sometimes, but not often, I do redline a joke.

It might make you feel better about it to know that your concern over that particular item was shared by others of the JOURNAL's staff, but that the ultimate decision to publish it was mine. Mea culpa!

We appreciate your expressing your viewpoint on the subject and would welcome comment pro or con from our other readers; after all, the JOURNAL is sensitive to its readers, or should be!

Aloha,
J.I. Frederick Reppun, MD
Editor

HMSA Answers Physicians' Questions

Q: Please review the HMSA policy regarding the mechanism for establishing and updating physicians' profiles.

A: HMSA establishes and maintains a record (profile) of services performed by each physician, in order to determine an HMSA Eligible Charge for each service. The Eligible Charge is used to determine the benefits payable under HMSA health plans. The physician profile contains the number of times a particular procedure is performed by a physician for HMSA members, and the charge for that procedure. Information for the physician profile is obtained from claims paid during January through September of each year and the information in all physician profiles, both participating and non-participating physicians, is used to update HMSA's Eligible Charges in January of each year.

Q: What information is available to individual physicians interested in determining his or her profile standing in relation to other physicians?

A: A physician may review his or her own profile by making an appointment with our Professional Relations Department at our main office. However, any information which compares a physician's charges with those of his peers is not available for examination.

From the HMA/HMSA Liaison Committee

The HMA/HMSA Q and A column in the HAWAII MEDICAL JOURNAL will be needing a backlog of questions posed by readers, particularly the practicing physicians of Hawaii, to which we can ask that HMSA respond. These questions are to relate to HMSA policies and practices but can have a wide latitude of applicability.

HMSA has requested that we submit these questions as early as possible so that it can develop responses and then turn over to the editor of the HMJ both the questions and the answers by the 20th of each month — the deadline for submission of hard copy for the issue that is to come out two months thereafter.

Obviously it would be to everyone's advantage to accumulate the questions. The HMJ can publish these only on a space-available basis, dependent on the amount of advertising that the publisher, Crossroads Press, can generate for each issue. The editor will do what he can to get them in, and whenever particularly appropriate, he will try to get in the ones that have a priority and pertinence.

Questions can be submitted to Cheryl at the HMA office in writing or by phone (536-7702) preferably by the first of each month, and please keep them coming!

Ed Boone can be reached at 523-2311 if there is any question about this exhortation.

Edward Boone, MD
Chairman

Evaluation and Therapy of Urinary Tract Infection: A Critique

Col. Douglas W. Soderdahl, MD, FACS*

Despite a great deal of observation and investigation, recurrent urinary tract infection remains a frequent problem in adult females. In most patients each episode represents a newly acquired organism (reinfection), although a small number of recurrent infections result from failure to eradicate a prior infection (unresolved or relapsing).

Most urinary infections in women can be managed by targeted urographic and endoscopic evaluation and by single dose or short courses of anti-bacterial agents. It is hoped that this critique will serve to spur efforts in the management of urinary tract infection toward cost reduction and enhanced safety without sacrificing therapeutic effectiveness.

Objectives in rational management of urinary tract infection (UTI) include cure, alleviation of symptoms, prevention of sequelae, reduction of risks attendant upon evaluation and/or therapy and, increasingly urgent, containment of health care costs. Two comparatively recent recommendations concerning care of patients with UTI appear to have favorable impact upon each of these objectives — short-term therapy and targeting of urinary tract evaluation toward clinically identifiable high-risk patients.

Why meetings on quality assurance, risk management, and health care cost-containment seldom address the evaluation and care of UTI is enigmatic. This topic seems highly important if it is true: (1) that UTI is second only to upper respiratory infection among illnesses for which medical care is sought; (2) that UTI in adults rarely threatens either life or renal function; (3) that evaluation other than tailored history and physical examination, urinalysis, and urine culture discloses an abnormality necessitating either a change in therapeutic plan or extension of work-up in less than 10 percent of adult women, by severalfold the largest patient cohort presenting with UTI; (4) that short-term — including single dose — treatment of adult female UTIs cures an equivalent proportion of individuals as do longer courses of antibacterials.

* Tripler Army Medical Center
Honolulu, Hawaii

Definitions

Recurrent UTIs fall into three broad categories, which not only can be identified with considerable precision in customary out- and inpatient settings, but also, once classified, lend themselves to curative, safe, and cost-effective therapy.

Unresolved: Urine culture remains positive for the original infecting organism while the patient is on therapy. The following reasons account for most recurrent UTIs of this type: organism resistance, patient non-compliance, inadequate level or duration of anti-microbial at the site of infection.

Relapsing: Urine culture becomes negative on therapy, but rapidly reverts to positive, again generally with the original organism at presentation. Most anatomicophysiologic genitourinary tract disturbances, if infected, are manifest in this category.

Reinfected: Urine culture becomes negative on therapy and only occasionally reverts to positive within a short interval after the cure. The reinfecting microbe generally differs from the original organism, but since *E. coli* accounts for at least 80 percent of all UTIs, this determination can be accomplished only by serotyping and other comparatively sophisticated techniques not routinely available to the practitioner.[1] Studies

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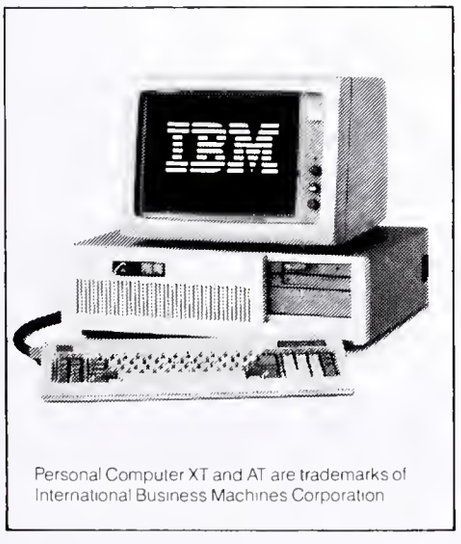

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show that over 95 percent of recurrent UTIs in adult females are reinfections.[2]

Theses

I. Category of recurrent UTI can be ascertained clinically.

II. Category of recurrent UTI requires state-of-the-art evaluation and therapy.

Unless otherwise specified, I refer in this discussion to recurrent UTIs in the adult female. Infections in the pediatric age group — in contrast to those in adult women — not infrequently constitute the mode of presentation for a large number of anatomicophysiologic derangements, many congenital.

Additionally, pediatric UTIs may indeed threaten renal function and/or life itself. For these reasons, aggressive evaluation, therapy, and surveillance in this age group are mandatory. In the adult male, a commonly occurring reservoir of infection in the prostate requires not only careful search for lower urinary tract obstructure uropathy but also a prolonged course of appropriate anti-bacterials.

Clinical Observation and Discussion

My first thesis, the category of UTI can be determined clinically, is inherent in the definition. Judicious use of urine culture is critical to this determination. Only the urine culture verifies the presence or absence of urinary infection with reasonable certainty. I have found the dipslide urine culture method extremely valuable, owing to its simplicity, accuracy, low cost, and adaptability to domiciliary care.[3]

Appropriate anti-bacterial therapy sterilizes the urine within 24 to 48 hours.[4] If urine culture at 48 hours is positive (unresolved infection), most often it is the dosage, route of administration, or the anti-microbial itself that should be changed. Foci of infection impervious to drug penetration seldom underlie unresolved urinary infections. Therefore, a urologic work-up is unrewarding as a rule, and need be pursued only after therapy with an agent carefully selected to effect cure has been tried.

In the event that the urine culture is negative on therapy, but repeatedly and virtually immediately reverts to positive when off therapy (relapsing infection), the frequency of finding an abnormality causally related to the UTI or of finding evidence of tissue invasion (e.g. pyelonephritis) is comparatively high. In this category of UTI, diligent search for etiology often rewards the clinician. Lesion-specific treatment can then be undertaken.

TABLE 1

Management Guidelines for Recurrent UTIs in Adult Females

Category	Urine culture at 48 hours	Urine culture after therapy	Evaluation	Therapy
Unresolved	+	N/A	None	Change anti-bacterial, short-term course
Relapsing	-	+	Urography/ Endoscopy	Anatomicophysiologic correction as required
Reinfected	-	-	None	Anti-bacterial, short-term course

When infection recurs after variable intervals of culture-documented cure, most probably reinfection has occurred. Because the infection-free interval differentiates this category from the relapsing infectons, it matters little that in both categories the causative organism is usually *E. coli.* Work-up of reinfections yields few, if any, more causally related abnormalities than would a urotgraphtic/endoscopic survey of an ambulatory, healthy population.[5-7] In this category of recurrent UTI, cure almost always results from the administration of inexpensive, well-tolerated anti-microbials (sulfonamides, nitrofurantoin, trimethoprim/sulfamethoxazole, tetracycline, penicillins, cephalosporins) for one to three days.[8-16] Rapidly recurring reinfections may necessitate low-dose, bedtime prophylactic anti-bacterials (sulfamethoxazole, trimethoprim/sulfamethoxazole, nitrofurantoin, acidification combined with methenamine) indefinitely, again with periodic urine culture.[17-20] Interesting, refections continue to recur despite bacteriologic cure and regardless of length of prophylasix.[21] (See Table 1.)

It is important to discriminate between the relapsing recurrent UTI and the reinfected urinary tract, because appropriate therapy differs significantly. That is, long-term prophylaxis needlessly burdens the patient who has relapsing infections with inconvenience, cost, and risk, when cure is at least possible by other means. On the other hand, the patient with reinfected urine responds no better to prolonged therapy than to a single dose or short-term program — the latter reducing cost and risk.

My second thesis, the category of recurrent UTI that requires state-of-the-art evaluation and therapy, is also apparent, to a degree, in the definition, but more importantly it has been established in the impressive clinical trials cited above. Short-term therapy and individualized urologic evaluation are unquestionably good practice. Fair et al. estimated a $62.5 million annual savings (1974 dollars) as the result of reducing the standard 10-day course of anti-bacterial or antiseptic to a three-day course in the treatment of UTI.[16] Exclusion of "routine" excretory urography and/or cystoscopy in the work-up of patients with recurrent UTIs will likewise reap a not inconsiderable dollar savings.[5]

Conclusion

Recurrent UTI remains a common problem in adult females, estimated to account for five million visits to the physician annually. In most patients each episode represents a newly acquired organism (reinfection), although a small number of recurrent infections result from failure to eradicate a prior infection (unresolved or relapsing). Most UTIs in women can be managed by targeted urographic and endoscopic evaluation and by single dose or short courses of anti-bacterial agents.

It is hoped that this critique will serve to spur efforts in the management of UTI toward cost-reducton and enhanced safety without sacrificing therapeutic effectiveness.

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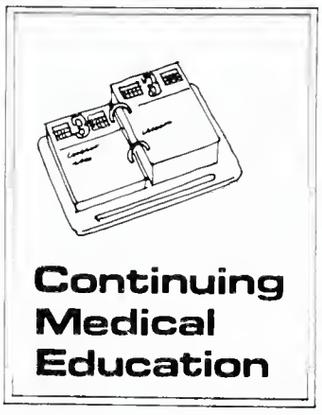


CALENDAR OF ACCREDITED EVENTS—CATEGORY 1

Accredited Programs of CME allow one unit of AMA credit for each hour of instruction excluding all "breaks." Some programs also are accredited for AAFP prescribed credit.

LOCAL ACCREDITED PROGRAMS

ONGOING

For a complete list of ongoing programs, please refer to the September 1985 issue of the HAWAII MEDICAL JOURNAL. Further information is available through the individual institutions or through the HMA's CME Department.

SPECIAL EVENTS

All special events should be confirmed with the CME program sponsors, as cancellations are not necessarily reported to the HAWAII MEDICAL JOURNAL.

Oct. 10-12, 1986	Hawaii Medical Association 130th Annual Scientific Meeting — Stress and Heart Disease, Jennie Asato, Hawaii Medical Association, 320 Ward Ave., Suite 200, Honolulu 96814, (808) 536-7702. Location: Westin Ilikai Hotel, Honolulu.
Oct. 18-25, 1986	Operative Arthroscopy, Janet Frank, assistant director, Continuing Education in Health Sciences, UCLA Extension, 10995 Le Conte Ave., Room 614, Los Angeles, Calif. 90024, (213) 825-8423. Location: Maui.
Oct. 18-26, 1986	Annual International Body Imaging Conference, Dept. of Radiology, West Park Hospital, 22141 Roscoe Blvd., Canoga Park, Calif. 91304, (818) 340-0580 X280. Travel agent: Innovations in Travel, 9545 Reseda Blvd., Northridge, Calif. 91324, (818) 701-1164. Location: Maui Marriott.
Oct. 20-24, 1986	New Approaches to the Evaluation of Neoplastic Lymphoproliferative Disorders, co-sponsored with the University of Southern California, Dr. John Parker, professor and co-chairman, Department of Pathology, University of Southern California School of Medicine, 2025 Zonal Ave., Los Angeles, Calif. 90033, (213) 224-7121. Location: Maui.
Nov. 2-8, 1986	Districts VII-IX Continuing Medical Education, American College of Obstetrics and Gynecology, 600 Maryland Ave., SW, Suite 300E, Washington, D.C. 20024, Attn: Barbara Kallas, (202) 638-5577. Location: Hyatt Regency Maui.
Nov. 5, 1986	Neurology Update: Parkinsonism and Other Movement Disorders, Julie Woo, Straub Foundation, 888 S. King St., Honolulu 96813, (808) 523-2311. Location: Hyatt Regency, Honolulu.
Nov. 30-Dec. 3, 1986	Kawasaki Syndrome Research Conference, co-sponsored with the American Heart Association, the Center for Disease Control, and the NHLBI of the NIH. Location: Kauai Hilton and Beach Villas.

Van Sonnenberg Sump Hemiacidrin Dissolution of Staghorn Calculi

Albert J. Mariani, MD*; Decha Intaraprasong, MD; Peter R. Clapp, MD; Arlene Pestana, Anandom Hariharan, MD; Ulrich K. Stams, MD.

A percutaneously placed Van Sonnenberg sump was successfully used in order to dissolve an infected staghorn calculus in two female patients using 10 percent hemiacidrin solution. At one-year follow-up the patients are asymptomatic and infection-free. Advantages of percutaneous chemolysis over ureteral catheter chemolysis include fewer problems with catheter migration and hemiacidrin cystitis and the patient is catheter-free and ambulatory.

Hemiacidrin chemolysis is safe, but patient care is demanding. Principles of successful hemiacidrin chemolysis include close patient-monitoring, free catheter drainage, systemic antibiotic coverage, and the prevention of the distal migration of fragments.

Chemolysis is not necessarily cost-effective. In this study the break-even point relative to the average cost of nine nephrolithotomies occurred on the 20th hospital day.

Introduction

Endourologic techniques have changed urologic thinking. Older treatment modalities such as chemolysis, which were impractical because of limitations in the state of the art, need to be re-evaluated in the light of new capabilities. Armamentaria from other medical disciplines also need to be re-evaluated for use in urology.

One such device is the Van Sonnenberg sump (Medi-Tech: Watertown, M.A.) which was designed for abscess drainage.[1] The #12 French Van Sonnenberg sump, if passed percutaneously into the renal pelvis, has the irrigation capacity of a #3 French and the drainage capacity of an #11 French catheter.

From the Departments of Urology and Invasive Radiology, Kaiser Medical Center and the University of Hawaii John A. Burns School of Medicine, Honolulu, Hawaii.

Read before the 60th Annual Meeting of the Western Section of the American Urological Association. Reno, Nev. (July 15, 1984.)

* Requests for reprints:
Dept. of Urology, Kaiser Medical Center
3288 Moanalua Rd., Honolulu, Hawaii 96819

Case 1: S.C. (M.R. 434845): A 23-year-old woman of Chinese-Caucasian descent presented herself in February 1981 with a history of recurrent Proteus mirabilis UTI characterized by dysuria, frequency, and mild flank tenderness. A temporary favorable response was achieved with antibiotic treatment. Urologic evaluation revealed a 7 cm right staghorn calculus with secondary hydronephrosis on excretory urogram and > 100,000 C.F.U./ml Proteus mirabilis on urine culture. The patient became asymptomatic on a course of ampicillin, which cleared the urine. Because the patient was a strict Jehovah's Witness, an attempt at ureteral catheter hemiacidrin chemolysis was offered as an alternative to a nephrolithotomy which the patient was reluctant to undergo.

A special consent was obtained and three attempts to dissolve the calculus resulted in a 30 percent reduction in the size of the calculus; however, in each instance the irrigation was discontinued within 24 to 96 hours because of catheter migration which resulted in flank pain, nausea, rigors, and fever despite negative urine cultures and antibiotic coverage. These symptoms promptly resolved when the hemiacidrin irrigation was discontinued and the ureteral catheter was removed. The calculus had been irrigated for a total of 80 hours at a rate of 80 cc/hour. The patient experienced hemicidrin cystitis which was controlled with antispasmodics and by increasing fluid intake.

Because the patient was asymptomatic on p.o. ampicillin, she was reluctant to undergo further attempts at chemolysis. No further reduction in the size of the calculus was noted despite sterile, normally acidic urine. On serial KUBs the calculus became increasingly radiopaque.

The patient elected to undergo an attempt at percutaneous hemiacidrin chemolysis of the calculus. On ampicillin systemic coverage and under sedation, a #12 French Van Sonnenberg sump was introduced percutaneously into the renal pelvis between the calculus and the mucosa 2 cm down the ureter. Hematuria persisted for three days after sump placement. Eight grams of alpha caproic amino acid were administered over eight hours with resultant rapid clearing of the urine. Twenty-four hours after the urine

FIGURE 1
Case I: Original Calculus

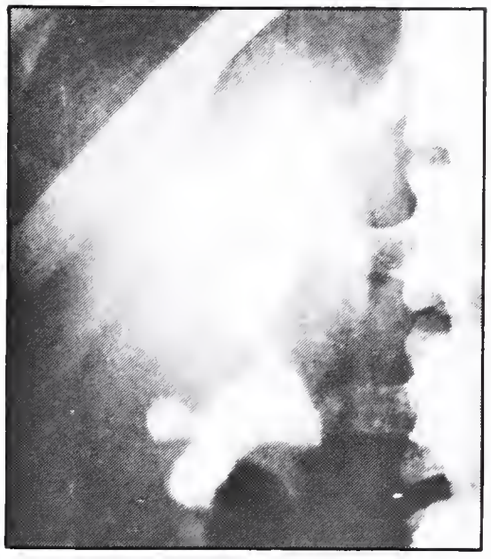


FIGURE 2
Case I: 77 hrs. Renacidin

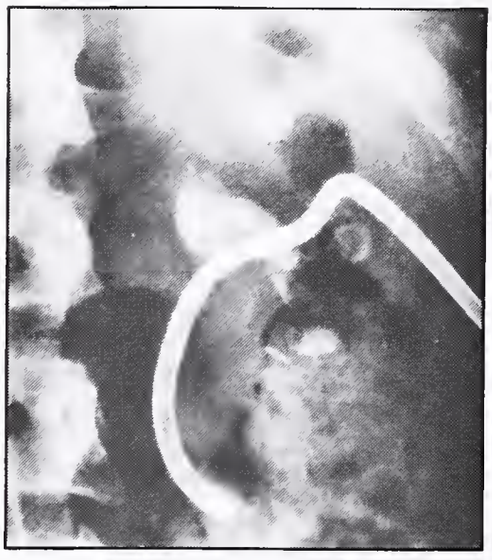
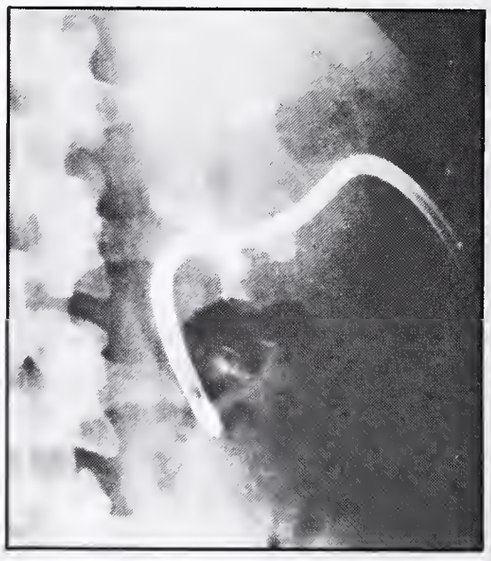


FIGURE 3
Case I: 185 hrs. Renacidin



had cleared, 10 percent hemiacidrin was instilled by gravity at 30 cm of water pressure at a rate of 80-100 cc/hour through the port of the Van Sonnenberg sump. Free drainage of urine, hemiacidrin and sediment from the dissolving calculus was maintained by manual irrigation of the drainge port t.i.d.

The patient had several acute episodes of flank pain accompanied by nausea, and a single episode of fever to 38.3 degrees centigrade orally. These were promptly relieved by discontinuing the hemiacidrin irrigation, manual irrigating the drainage port, and irrigation with normal saline for one to 12 hours. Symptoms correlated with sump obstruction and not with urine culture findings which were usually negative but on occasion grew low counts of contaminants.

Throughout the irrigation period the patient was covered with 250 mg ampicillin q.i.d. p.o. By the 36th day and after 550 hours of hemiacidrin irrigation, there remained a 3 mm calcification in a dependent ectatic lower pole calyx. Despite irrigation to the 44th hospital day for a total of 650 hours of hemiacidrin, there was no further dissolution of the remaining calculus.

Upon discharge from hospital, the patient was continued on ampecillin for six weeks. During that period she was treated for an E. coli cystitis with Furadantin macrocrystals and subsequently maintained on a regimen of 50 mg Furandantin macrocrystals at h.s. At follow-up at one year she was asymptomatic, infection-free, and the 3 mm residual calcification had remained unchanged (Fig. 1-5).

Case 2: H.F. (M.R. 236284). A 32-year-old Caucasian woman presented herself in April 1983 with a 10-month history of urinary frquency and left flank discomfort. She had been treated for two episodes of Proteus mirabilis UTI during the previous two months with temporary symptomatic relief. There was a significant past history of the spontaneous passage of two, left-sided ureteral calculi 12 years previously. Urologic evaluation revealed a left-sided staghorn calculus which was relatively radiolucent, and a 100,000 C.F.U./ml Proteus mirabilis culture. The urine was cleared of infection with p.o. ampicillin, which caused resolution of the irritating symptoms on voiding but not the persistent dull left flank discomfort.

A left nephrolithotomy was offered to, but declined by the patient; therefore, the option of percutaneous hemiacidrin therapy was offered and accepted. A special consent was obtained. The Van Sonnenberg sump was placed and managed as in Case 1. During the irrigation there were three episodes of flank pain with nausea and vomiting, which were managed successfully by manual irrigation of the sump after discontinuing the hemiacidrin. The sediment which obstructed the catheter had the consistency of clay and tested positive for calcium, phosphorus, magnesium and protein. After 100 hours of 10 percent hemiacidrin irrigation over eight days at a rate of 100 cc/hour the calculus was no longer present on KUB with tomograms. The irrigation was continued for two additional days, however.

The patient was discharged on a six-week course of ampicillin 250 mg q.i.d. p.o. During this period she had two episodes of E. coli cystitis which were treated with Cotrimoxazole, after which she was placed on a maintenance low-dose Cotrimoxazole suppression regime.

At three-month follow-up, a 2 mm calcification was noted in a dependent left lower pole calyx. At one-year follow-up, the patient was infection-free, off antibiotics and there was no change in the appearance of the calculus.

Cost Effectiveness

The cost of nine nephrolithotomies performed at this institution from 1977 to 1983, including hospitalization, surgery, anesthesia, blood products, laboratory, medications, supplies, and six weeks' disability was calculated to have been $12,900 per patient. The average cost per day of percutaneous chemolysis, including hospitalization, procedure fees, laboratory, medications, supplies, and one week of disability after discharge was $660 per patient. If these figures are representative, the break-even point in terms of cost-effectiveness would occur at 19.5 days.

Discussion

Hemiacidrin, a mixture of magnesium organic acid salts buffered to a pH of 4.0, was developed in the 1950s for chemolysis of struvite calculi. Its use in the early '60s, prior to a good understanding of the pathophysiology of infection-related stones, was thought to contribute circumstantially to the deaths of at least seven patients.[2, 3, 4, 5] Retrospective review suggests that these were septic deaths due to uncontrolled urinary tract infections complicated by drainage-catheter obstruction. The Federal Drug Administration subsequently prohibited the use of hemiacidrin in the urinary

(Continued on page 315)

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FIGURE 4
Case 1: 230 hrs. Renacidin

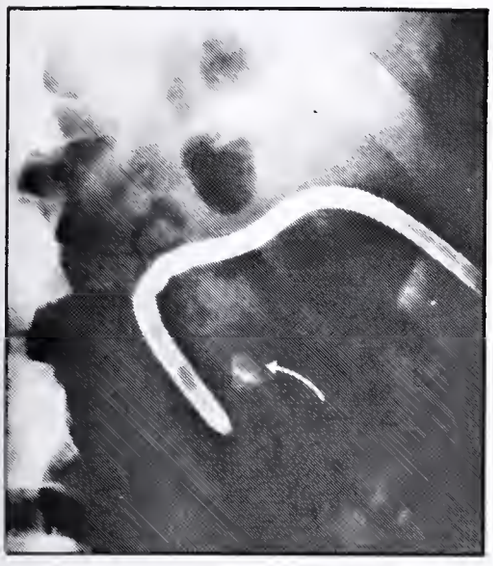
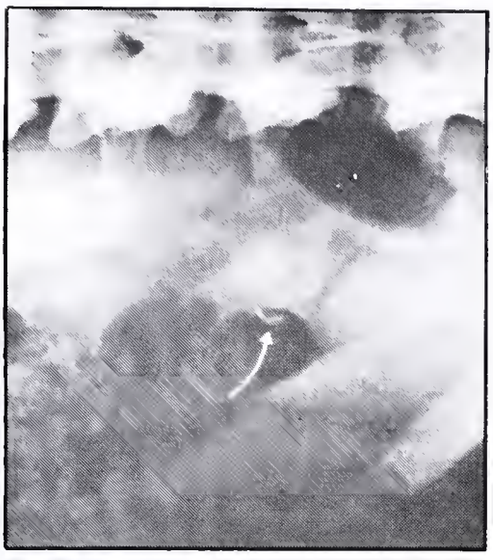


FIGURE 5
Case 1: 415 hrs. Renacidin



(Continued from page 312)

tract above the bladder.

Several investigators have since then demonstrated the safety and effectiveness of hemiacidrin in the irrigation of nephrostomy tubes after nephrolithotomy,[6, 7, 8] de novo chemolysis by ureteral catheter systems,[9] and by percutaneous nephrostomy.[10, 11] Safety is dependent upon close patient-monitoring which, when properly carried out, is a difficult task at best. At the first sign of obstruction, characterized by flank pain, nausea and vomiting or of sepsis, characterized by fever, irrigation should be discontinued immediately and not restarted until the obstruction has been cleared away and/or the infection has been successfully treated.

Symptoms correlate better with obstruction than with infection; however, hemiacidrin chemolysis should not be attempted in the presence of infection. Chemolysis is relatively contraindicated for patients who are unable to cooperate and for paraplegics unable to experience flank pain. Patients must be monitored with frequent KUBs with tomograms, CBCs, serum electrolytes, creatinines, phosphorus,[4] and magnesium.[12]

Advantages of chemolysis over nephrolithotomy include preservation of renal parenchyma,[13, 14, 15] avoidance of anesthesia and the scar and disability of an incision. If the calculus is soluble there may be a decrease in the rate of recurrence and of subsequent infection.[10]

The disadvantages of chemolysis, as compared with nephrolithotomy, include an inability to dissolve the calculus. While hemiacidrin can dissolve struvite, apatite is less soluble and calcium oxalate, uric acid and cystine are insoluble. Stones of mixed composition may be present in up to 50 percent of cases.[16] Chemolysis must not precede the correction of anatomic defects which are likely to predispose to recurrence.[17, 18] Because the patient and the irrigation system require close monitoring, both physician and nursing care is more demanding. Lengths of stay under chemolysis — while widely variable — tend to be long; thus, this modality is not ncessarily cost-effective. These difficulties generally restrict chemolysis to patients who are not candidates for nephrolitotomy.

Summary

The advantages of percutaneous chemolysis over ureteral catheter chemolysis include fewer problems with catheter migration and obstruction, hemiacidrin cystitis is avoided, and the patient is fully ambulatory. Any renal pelvic irrigation system that follows the principles of frequent patient-monitoring, free catheter drainage, appropriate systemic antibiotic coverage, and distal ureteral obstruction during chemolysis to prevent migration of fragments should be effective. With present endourologic techniques, de novo chemolysis of stones may, in fact, be obsolete.

Chemolysis, however, may have an adjuvant role. As the surface area of the calculus is increased relative to its volume, so does the speed of dissolution. Endourologic procedures are capable of reducing the bulk of the calculus, and in the process can increase the surface-area-to-volume ratio of remaining fragments. Hemiacidrin, therefore, should prove useful to dissolve fragments that would otherwise predispose to infection and calculus recurrence.[16, 17, 18] The ban on the use of hemiacidrin should be reconsidered, therefore in the light of modern management of stones the result of infection.

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Hawaii Academy of Family Physicians' Newsletter

Membership

Welcome greetings to Bradon Y. Kimura, the newest active member of HAFP. He recently completed his FP residency in Omaha, Neb., and resides in Holualoa on the Big Island. We are losing two active members, however. We bid aloha to David Livingstone, who is moving to Fort Worth, Texas, and Kenneth Steinweg, a member of the Executive Council and chief of the FP residency program at Tripler, who is being reassigned to South Carolina where he will begin a fellowship in geriatrics. The Family Practice Department at Tripler is being closed, but at Schofield the department will be greatly enlarged and in charge of outpatient services . . . Congratulations to Don Farrell, HAFP president-elect, on receiving an award for "Excellence in Teaching" from the UH medical school. He also attended the recent AAFP State Officers' Conference in Kansas City — more on that later.

Executive Council

Lincoln Luke, HAFP president, recently appointed Izumi Kobashigawa to the Council to serve the remaining term of Lloyd Kobayashi, who had resigned. Luke also appointed the following committee chairmen: John Aoki - Education, Bernard Chun - Legislation and Government Affairs, Jennifer Frank - Mental Health, Robert Hollison - Public Relations, Howman Lam - Hospitals, Lily Ning - Membership and Membership Services, Sandra Penn - Cancer, Fred Reppun - Bylaws, and Nathan Wong - Minority Health. Luke himself will chair the Public Health-Scientific Affairs committee.

State Officers' Conference

AAFP President Richard Inskip in his address to the S.O.C. in Kansas City sounded optimistic on the present and future of family practice. To ensure the continued positive image of the specialty, the Academy, in conjunction with the American Board of Family Practice, is developing a multimillion-dollar public relations program. Funds for the three-year program will come from AAFP, ABFP, and from pharmaceutical donations. It will not be necessary to assess the membership as had previously been projected.

Reporting on his own efforts to promote the specialty, Inskip said: "I've been traveling all over the country. I'll speak even to a group as small as two or three people, or to a professional society or a multimillion audience through our media to bring the message of family practice to them. And it is an easy message to bring. I do it with enthusiasm because the product is good!"

Speaking on the role of chapters in the Academy, Dr. Robert Graham, new executive vice president, noted that the future of the chapters is the future of the Academy. He stated that some issues facing family physicians, e.g. hospital privilege problems, are best-addressed at the local or chapter level. Others, such as medicare reimbursement, are best-handled at the national level. A third group requires both local and national involvement, namely tort reform. He urged chapter officers to involve themselves forcefully with their state legislatures in working toward resolution of the malpractice insurance crisis.

AAFP Annual Meeting

The 38th Annual Convention to be held in Washington, D.C., promises to be an outstanding experience. The dates are as follows: 1986 Congress of Delegates meets Saturday, Sept. 27 through Monday, Sept. 29; the Scientific Assembly takes place Monday, Sept. 29 through Thursday, Oct. 2. Members have probably received the program brochure by now, and should make sure to register early. This should be a great time to visit our nation's capital. The summer tourists will have left, the weather should be beautiful, and many special events and tours have been planned for physicians and their families along with an exciting and varied CME program. Plan to be there!

Hawaii Review 1987

It is not too early to plan for our own chapter's annual meeting, another joint venture with our Canadian colleagues from British Columbia. It is set for Feb. 12-17, 1987 at the Hilton Hawaiian Village. We urge members to sign up now; it will save you money and ensure you a place in the special seminars with limited registration. Also, if you require a room, please do not wait until the last minute — Honolulu really does become "sold out" in February. The planning committee has come up with an excellent CME program, featuring speakers such as Hiram Curry, Elliot Rapaport, David Li, and others from the U.S. Mainland and Canada along with many outstanding local speakers. The major topics are immunology, neurology, infectious diseases, and cardiovascular diseases. There will be an ob-gyn seminar running concurrently with daily sessions. The "Seaside Chats" will provide for informal gatherings with the main speakers at the conference. Several social events, a spouse program and even a "Fun Run" provide a change from the scientific concentration. All in all, "Hawaii Review" should be a wonderful experience for Hawaii physicians and their families as well as for our visitors from Canada and the Mainland. Register now and be a part of it!

Marlies Farrell
Executive Secretary

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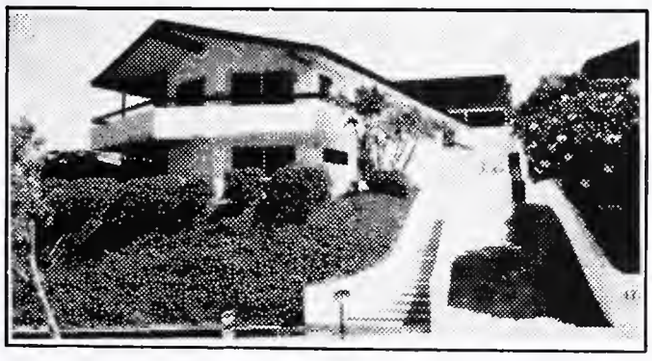

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Effusions

The abnormal accumulation of fluid in the body cavities, effusion, is a common diagnostic problem. It is not a disease but is a manifestation of a disease process. The cause is often obvious as in congestive heart failure but whatever the cause, it requires study because the effusion may be due to a serious, if not fatal, disease. The fluid provides a source of diagnostic information that requires a multidisciplinary study including chemistry, microbiology, immunology, histopathology, and cythopathology. The maximum value of studies require the proper selection of tests available, and correlation with the clinical findings. The simultaneous presence of an effusion and a disease that can produce fluid accumulation does not necessarily mean a causal relationship.

The identification of the etiology of the effusion is essential for proper management and treatment. The differentiation of transudate from exudate by chemical and other studies is not always reliable.

Transudates are usually protein-poor fluids caused by diseases outside the particular cavity, such as congestive heart failure, cirrhosis, and renal failure. Small amounts of serous fluid are normally maintained in the peritoneal, pleura, and pericardial cavities. This fluid is an ultrafiltrate of plasma and its formation and removal is a dynamic and continual process. Hydrostatic fluid pressure drives fluid into the cavities and plasma colloidal osmotic pressure drives it back into the vascular spaces. A disturbance of this dynamic process results in the transudate.

Exudates are protein-rich fluids caused by diseases directly involving the organ or surfaces of the particular body cavity such as inflammation, infection, infarction, and malignancies. The transudate usually has a total protein of less than 3 gm/dl, specific gravity under 1.015 and a fluid LDH/serum LDH ratio of less than 0.6. Exudate fluid usually has more than 3 gm/dl of protein, specific gravity greater than 1.015, and an LDH ratio (fluid/serum) greater than 0.6. LDH isoenzyme studies reveal high levels of LD-5 in malignant effusions except those due to lymphomas and small-cell carcinomas.[1] Empyemas cause an elevation of both LD-4 and LD-5. True transudates do not require further testing in most cases but rare cases have shown a coincidental evidence of malignancy.[2]

The cell count is rarely helpful in the differential diagnosis. RBC count greater than 100,000 per cubic mm is usually due to trauma, infarction, or malignancy. There usually are less than 1,000 WBC per cubic mm in transudates and more in exudates but there is a large overlapping gray zone. The differential usually shows more lymphocytes in transudates and more neutrophiles in exudates, but lymphocytes increase with chronicity. The presence of LE cells in pleural fluid is highly specific but very poorly sensitive while an anti-nuclear antibody titer of more than 1:160 is more sensitive although less specific for lupus pleuritis.[3]

The presence of tumor cells is helpful in arriving at a specific diagnosis. Tumor cells are found in more than 50 percent of a single specimen but the yield increases with the examination of more samples.

Pleural effusion is most commonly due to inflammation, cardiac failure, and malignancy. Helpful studies in the diagnosis of malignancies in addition to cytopathologic studies include DNA stains, immunocytochemistry, flow cytometry, and electron microscopy. The differentiation of mesothelioma and metastatic carcinoma is difficult and sometimes impossible on cytologic grounds. Electron microscopy may be helpful. CEA has been reported positive in epithelial malignancies and absent in mesothelial cells.[4] CEA levels of over 11 ng/ml were found only in malignant effusions. Cultures, in addition to routine bacterial studies, should include those for AFB and Legionella.

Pericardial effusion may be due to infection, rheumatologic diseases, malignancy, or uremia. Idiopathic pericarditis is usually of viral origin but may be due to bacteria. Cultures for AFB should be done in addition to routine bacterial cultures.

Peritoneal fluid accumulation may be due to rupture or leakage from a hollow organ, spontaneous in chronic ascites, malignancies, infection, or chronic peritoneal dialysis. Negative cultures may be due to too low numbers of organisms or non-infectious inflammation.

Routine chemistries such as glucose, amylase, cholesterol and triglycerides, and complement are very rarely helpful and should be ordered only if indicated.[5] Fungus cultures are usually not helpful unless there is parenchymal or systemic disease.

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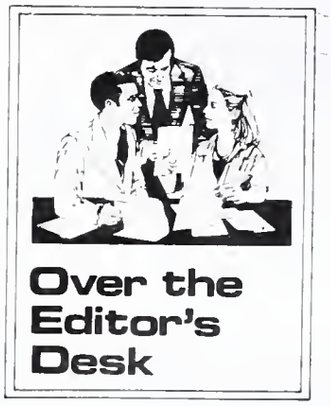
Francis H. Fukunaga, MD

Book Review

Orthostatic Hypotension Irwin J. Schatz, MD, 146 pages. F.A. Davis Co., Philadelphia, 1986, $30.

This monograph, of manageable proportions, succinctly describes the diversity of causes, pathophysiology, diagnostic evaluation, and clinical management of orthostatic hypotension. It is particularly well-suited for guidance of the clinician, specialist, or generalist, and has an extensive up-to-date bibliography for those interested in more detailed literature. The author divides the book into approximately equal proportions of pathophysiology and diagnosis and management, with an excellent chapter of illustrative cases. Since this is clearly a work for the clinician, perhaps the clinician portion should have come first. Likewise, a bit more precision in the details of physical diagnosis and testing, possibly in an appendix, would have been appreciated. The "how-to" portion of management is especially well-done. As geriatrics becomes a greater part of our medical milieu, a concise readable monograph dealing with a problem so debilitating in this group is much appreciated.

Alfred Morris, MD



UPDATE . . . PROTECTION AND ADVOCACY FOR MENTALLY ILL INDIVIDUALS ACT OF 1985—From the Protection and Advocacy Agency of Hawaii — Congress is putting the final touches on the new Protection and Advocacy for Mentally Ill Individuals Act. The bill designates $33 million over the next three years for advocacy and protection for mentally ill people. State protection and advocacy agencies will be eligible for not less than $125,000 annually. Hawaii Protection and Advocacy Agency along with the national organization has been working toward implementation of this model legislation.

The bill was introduced by Sen. Lowell Weicker and Rep. Henry Waxman following a six-month investigation and congressional hearings on the treatment of patients in state mental institutions. The investigation revealed numerous instances of physical and sexual abuse, unclean and unsafe environments, and atmospheres of intimidation, violence, and secrecy in state facilities for the mentally ill. The investigation included 31 institutions in 12 states. Of particular concern were the frequency of forced isolation, the inappropriate use of medication and mechanical restraints, and the serious lack of privacy. The new protection and advocacy service was developed in response to weaknesses in state and federal monitoring systems.

The funds can be appropriated to protection and advocacy groups that were created by the Developmental Disabilities Act of 1984. Funds may be spent investigating suspected abuse or neglect of mentally ill persons or pursuing their administrative and legal rights. Protection and Advocacy Agency of Hawaii is currently involved in planning and designing of the system for state implementation in the very near future.

SOCIAL SECURITY WORK INCENTIVE LAW MAY BE EXTENDED. Identical bills were introduced in the Senate and House March 19 that would eliminate a disincentive Supplemental Security Income recipients face when considering a return to work.

The legislation, titled the Employment Opportunities for Disabled Americans Act, would make Section 1619 of the Social Security Act permanent. Section 1619, now authorized through June 30 of next year, allows disabled persons who get jobs to continue receiving Medicaid benefits while working until their earned income exceeds a certain amount. That amount varies from state to state.

Currently, only about 7,000 out of 2.3 million working-age SSI recipients take advantage of Sections 1619, primarily because of disabled persons' fears that the program may expire, leaving them without coverage for medical expenses. An estimated 600,000 SSI beneficiaries are either mentally ill or mentally retarded.

The program also is not well-known, a problem the legislature hopes to remedy through a provision that would require the Social Security Administration to notify prospective participants about the program, and where feasible, designate a Section 1619 specialist in district offices in order to enhance its utilization.

SSI beneficiaries wanting to work have their SSI benefits reduced $1 for every $2 they earn. In most states, this means a person earning $757 a month would no longer qualify for SSI benefits. Section 1619 was originally enacted in 1980 on a demonstration basis until 1984. Its authorization was subsequently extended to 1987.

For each person who participates in the Section 1619 program, the federal government saves an average of $4,000 a year, according to Rep. Bartlett, who introduced the bill in the House. "Thus, for every 10,000 persons who participate in the program, we save $40 million per year," he noted. Moreover, SSI recipients who work pay income taxes and about one-third of them end up receiving coverage from their firm's employee health benefit plans, further reducing federal Medicaid expenses for this group, he said.

NEW PRODUCT UTILIZES ORAL REHYDRATION FOR SYMPTOMATIC DIARRHEA TREATMENT AS RECOMMENDED BY WORLD HEALTH ORGANIZATION. From USV Laboratories, Tarrytown, N.Y., May 1986—Gastrolyte, a new, nonprescription product for oral rehydration in diarrhea, is being introduced by USV Laboratories. It is the first commercially available anti-diarrheal product in the U.S. that meets the standards recommended by the World Health Organization for oral rehydration in diarrhea.

Pleasant-tasting and easy to use, Gastrolyte is appropriate for patients of all ages and is compatible with all anti-diarrheal medications.

Gastrolyte is designed for use both at home and when traveling. It is available in convenient, premeasured packets with its own container for mixing with water.

LEDERLE TO CONTINUE DTP DISTRIBUTION DESPITE INSURANCE EXPIRATION. Wayne, N.J., May 20, 1986—After considerable review, Lederle Laboratories, a division of American Cyanamid Co., announced today it would continue to supply DTP vaccine despite expiration of its insurance on June 30.

Robert B. Johnson, president, said the company would have no replacement coverage for DTP when the current policy runs out.

Johnson said that to cover the liability exposure the company would face, following expiration of its insurance on the product, an increase in the price of the vaccine from the current price of $4.29 to $11.40 per dose. The new price would include $8 for product-liability reserve.

"The price increase is due entirely to the claims situation. It is required to self-insure the company for future liability exposure," Johnson said. "It is the only way we can remain in the market."

AGING POPULATION RESHAPES HEALTH CARE SYSTEM. American Hospital Association—By the time today's 30-year-olds celebrate their 65th birthdays, they will be part of a demographic revolution. The number of people 65 years of age and over will more than double in the next 35 years, reaching a projected total of more than 45 million (15.5 percent of the total U.S. population) by 2020, according to the U.S. Bureau of the Census. On July 1, 1983, for the first time in history, the number of people in the U.S. over the age of 65 was greater than the number of people under age 25. Every day the total number of seniors (65 years and older) increases by 1,600.

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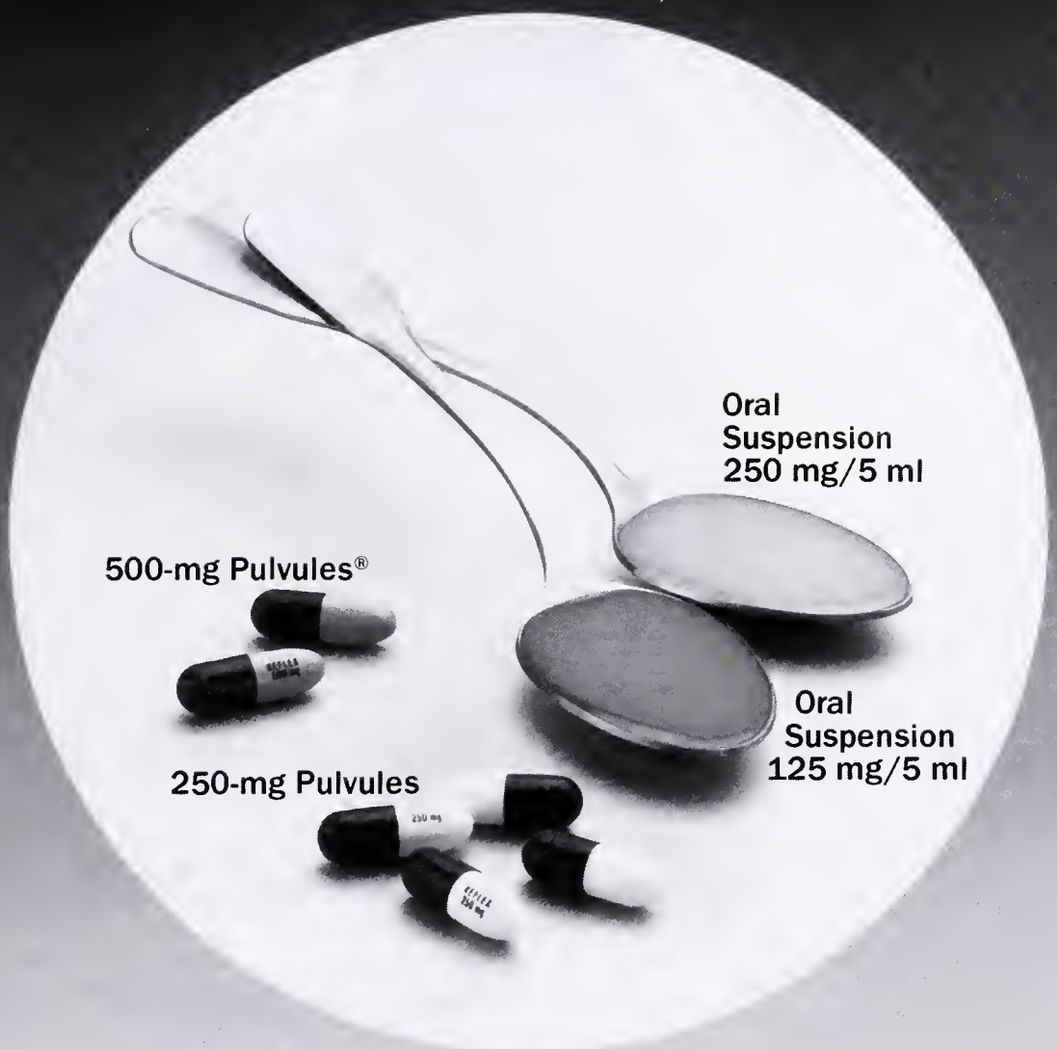

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Hawaii's First Ophthalmologist

Robert C. Schmitt, MA*

Although professionally trained Western physicians had lived in Hawaii since 1811, the various medical specialties remained unrepresented for many years, and all care in the mid-19th century still depended on the efforts of general practitioners or their native counterparts, the kahuna lapa'au. *Ophthalmology was no exception to this lack of specialization.*

Hawaiian tradition relied heavily on medicinal herbs and earnest prayer for most eye ailments. Cataracts were treated by "gently scraping the surface of the cornea with a bit of soft *kapa*."[1]

Western medicine was only slightly more sophisticated. When Dr. Dwight Baldwin, the mission physician at Lahaina, "was taken myself (in 1836) with violent inflammation of the right eye," for example, he treated his condition with "an active cathartic of colcynth and cal" and epsom salts, and "applied blisters behind the ears — still washing eyes often with cold water."[2]

Five years later, his colleague in Honolulu, Dr. Gerrit P. Judd, employed even more heroic measures to treat Juliette Montague Cooke, who had accidentally poured a mixture of castor oil and ammonia into her eye instead of eye water.[3] The patient later reported that she "was bled eight or 10 times, twice the temporal artery was opened and a pint at a time taken from the temples; blisters, cathartics, tartar emetics, etc., were my constant companions for, I cannot say how many days."[4]

Eyeglasses were not available locally until 1846, when E.H. Boardman, a Honolulu watch and chronometer maker, began to stock them. Prior to that time, island residents in need of spectacles had to order them from Boston, enduring a wait of a year or longer. The first Oahuan to call himself an optician, August Kraft, did not set up shop until 1879.[5]

This scarcity of professional expertise abruptly ended in March 1866, with the arrival of Dr. Joseph Nicholas Bechtinger. Disembarking from his ship after a 15-day voyage from San Francisco, he immediately set about opening an office.

On March 24, both of Honolulu's major newspapers carried advertisements announcing his practice: "G. Bechtinger, MD, offers his services as physician and surgeon to the public of Honolulu. He may be consulted in the English, French, German, Spanish, and Italian languages. Particular attention given to diseases of the eyes. Office hours from 9 a.m. to midnight, and from 2 to 4 p.m., at the drug store of J.M. Smith & Co."[6] (Both advertisements unaccountably got his first initial wrong.)

Further information appeared in a news item in the Gazette: "DR. BECHTINGER — We beg to call attention to this gentleman's card in today's paper who we understand comes highly recommended with the best of credentials. The doctor was for some time engaged in one of the hospitals at Washington during the war, and subsequently went to Mexico. The typhoid fever, however, attacked him at the city of Mexico, and he was compelled to leave that country. The doctor speaks seven different languages fluently, including English."[7]

Bechtinger was a native of Austria, born in 1834 or 1835.[8] He described himself as a "general practitioner, doctor of total medical science, fellow of the medical faculty of Vienna, of Mexico, the Doctors Collegium of Trieste, as well as the Austro-Hungarian Geographical Society, etc." Although fluent in numerous languages, he regarded Italian as his mother tongue.[9] He was apparently unmarried at the time he resided in Hawaii.

"Kauka Bekinika" soon impressed patients with his abilities. Less than three months after the opening of his office, a Hawaiian-language newspaper praised his work:

> DISEASES OF THE EYE — In the past several years, eye ailments have been widely noticed amongst us, and have frequently become a contagion. We have heard, these past few weeks, that the eyes of certain people Doctor Bechtinger (sic) has attended to are very well cured and this we wish to make publicly known. He is the sort of physician much desired by all.[10]

No record has survived of the methods and equipment used by Bechtinger. Significant progress had occurred in ophthalmology during the decade or two immediately preceding his arrival in Hawaii. In 1851, for example, Helmholtz invented the ophthalmoscope; six years later, Graefe introduced the operation of iridectomy and, according to one historian, "ushered in the modern era of ophthalmic surgery."[11] As (presumably) a recent graduate of a European medical school, Bechtinger was surely aware of these developments. Whether he was able to make effective use of such techniques in an outpost like Honolulu is, however, unknown.

Bechtinger lived in Hawaii for a year. During that time he traveled extensively throughout the kingdom and closely observed island conditions. In July 1866 he moved his office to "the building next above Chase's Photographic Gallery on Fort Street." His advertisements ran regularly until Sept. 15.[12] On March 4, 1867, he sailed on the *China Packet* for Hong Kong, leaving Hawaii forever.[13]

Two years after his departure, Bechtinger published a 204-page book, Ein Jahr auf den Sandwich-Inseln. In it he described (in German) not only his own experiences in Hawaii but also the "land, people, habits and customs, imports, ex-

(Continued on page 324)

* State Statistician
Hawaii State Department of Planning and Economic Development
P.O. Box 2359
Honolulu, Hawaii 96804

ports, with consideration of the climatic situation, existing diseases, etc." Fully 46 pages were devoted to health matters, including respiratory diseases, tuberculosis, influenza, epidemics, kahunas, leprosy, venereal diseases, the Board of Health, the use of Awa, and his foreign medical colleagues.[14]

Bechtinger resurfaced in San Francisco in 1875, operating an Eye, Ear, and Throat Institute at 704 Sacramento St. On Aug. 25, at the age of 40, he received his U.S. naturalization papers.[15] For five months he ran notices in a Honolulu newspaper, seeking the patronage of islanders and hinting at some of his more recent exploits:

"J. BECHTINGER, MD, of the University of Vienna, late physician to the harem of the Grand Vizier of Egypt, has the honor to announce to the inhabitants of the country visiting California that he has lately opened his Institute. He respectfully calls attention to the special advantages which he offers not only from special devotion to eye, ear, and throat diseases, but also from extensive and varied experiences in the treatment of the ailments peculiar to the different tropical countries he has visited since his visit to this kingdom 10 years ago."[16]

His last appearance in the San Francisco city directory (where he was listed as an "oculist and aurist") was in 1878.[17] No record has been found of his subsequent career, or of the date and place of his death.

Bechtinger's departure in 1867 left Hawaii without a full-time eye specialist for many more years. An 1881 arrival, E. Pontoppidan, MD, described himself as an "Oculist, Physician and Surgeon, Eye Diseases a Specialty," but after three months he, too, dropped out of sight. It was not until 1895, when Dr. Henry C. Sloggett opened his office, that ophthalmology became permanently established in the island medical community.[8]

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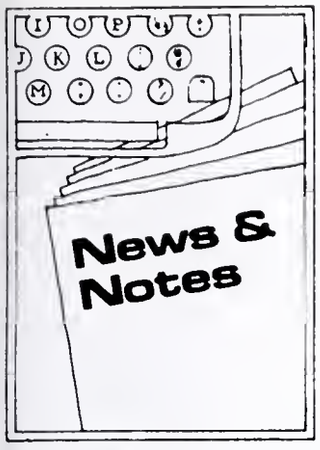

HENRY YOKOYAMA, MD

Miscellany

A plane carrying Gorbachev, Reagan, and Marcos was afire and going down. Only one parachute could be found and the three debated as to who would use the parachute. Gorbachev raved, "I'm the ruler of the largest nation in the world." Reagan countered: "I'm president of the richest nation in the world." Marcos suggested, "Let's vote." (As told by George Seberg.)

Tid Bits . . .

"You can see why our Love and War man so rarely quotes Aristotle. He said, 'Make love in a South wind to beget a girl, in the North wind for a boy.' " (From "Just Checking" by Lou Boyd.)

The Friday Fishwrap. "In her Scentsationally Yours fragrance workshops, S.F.'s Bebe Grau tells this tale to illustrate the power of scent: 'A trapped female sawfly in estrus (heat) once attracted an estimated 11,000 males in eight days and she was dead for the last three' . . . Have a nice breakfast and keep your cool, especially in estrus." (From Herb Caen's column.)

That beautiful piece "Man and His Genes" in the June issue of the JOURNAL was written by Mike Okihiro. Somehow the byline was lost in the shuffle. Our apologies.

It's the lifetime dream of any physician

to discover some new syndrome hitherto undiscovered and it's almost pure fantasy to have such a syndrome named after himself. Back in 1977, Okihiro, T. Tasaki, K.K. Nakano, and B.K. Bennett reported in The Archives of Neurology: "Duane Syndrome and Congenital Upper-Limb Anomalies." Recently Ailish Hayes, Department of Medical Genetics, The Montreal Children's Hospital, Montreal, Quebec, Canada, reported in the American Journal of Medical Genetics (1985) about "The Okihiro Syndrome of Duane Anomaly, Radial Ray Abnormalities, and Deafness." The journal read: "We propose that the disorder be named the Okihiro syndrome, since Okihiro et al. (1977) were the first to recognize the non-ocular abnormalities in a single pedigree."

In the May Issue, we credited Grant Stemmerman with the statement, "Afrotoxins have a synergistic effect with Hepatitis B. In China, the beer manufactured has a high afrotoxin content." We lived in blissful ignorance until Vincent Aoki corrected us recently: " 'Afrotoxins' is spelled 'Aflatoxins.' The only Afrotoxins are those in Africa."

"Life does not stop with terminal illness. Only the patient stops if he doesn't have the will to go forward with life." (From Time magazine, March 17. Quote by Jacob K. Javits, who was afflicted with ALS; lived 1904-1986.)

Time magazine's March 24, 1986 cover story, "Sorry, Your Policy is Canceled" read: "On the Hawaiian island of Molokai, pregnant women who want a doctor in attendance when they give birth, fly to neighboring Oahu or Maui. The five Molokai doctors who once delivered babies have stopped doing so because malpractice insurance would cost them more than the total of any obstetrical fees they could hope to collect."

Heard on KHVH-Newsradio 99, Paul Harvey's witticism: "Somewhere in Alabama, a call girl was running for governor. Quote: 'Politics and prostitution have something in common' . . . This is National Procastination Week. Go ahead and send your last year's Christmas cards . . . The president of the Procastination Club claims a membership of half a million members who have yet to send in their membership applications."

News in Brief

Straub has a new Sexual Potential Center which offers a team approach to sexual problems. William Yarbrough is director and Robert Pelfrey is assistant director. Joseph Giovannoni, certified

sex therapist, is coordinator.

Kaiser Foundation Health Plan Inc. has SHPDA-approval for an outpatient clinic in Kailua-Kona to be staffed by three physicians. Sira Santad, who has offices in Honalo and Kailua, is the only obstetrician left in Kona who delivers babies. Ken Grant, Ed Gramlich, and Nancy Stukan had announced last year that they will not be delivering babies as of July 1 because of rising liability premiums.

"The phone has been ringing off the hook at Richard Mamiya's office since the new theater at St. Louis-Chaminade was named after him. Unfortunately, the theater was completed after the phone book came out. The good doc says he's pleased to be involved, but he's not the guy to call for tickets." (From Don Chapman's column, May 16.)

Jim Gallup was voted "Hawaii's Male Athlete of the Year" in 1985 by the Honolulu Quarterback Club. Jim, 50, led all qualifiers in the 50-and-over division with a time of 5:04.

QMC to the Rescue . . .

QMC President Fred Pritchard told Molokai residents that his corporation would buy Molokai General Hospital's assets and lease the hospital land. QMC would assume Molokai General's outstanding debts of more than $100,000, provided all legal actions against Molokai General are resolved. QMC hopes to work with the now-disbanded Molokai Clinic members and offer them malpractice insurance.

Oncology Dialogue

Surgeon James Nishi presented a 52-year-old woman referred by an ob-gyn man who had done a mammogram which showed microcalcification clusters in a dense right breast. "I scheduled her for a needle biospy, but after inserting the needle, I had a suspicion and fortunately did a wider quadrant biopsy. We are now waiting for a radiotherapist consultation because of the multicentricity of the lesion."

Moderator Glenn Kokame, curious about the needle biopsy, asked David Sakuda, "Is it painful?"

David was forthright: "Depends on the patient and the doctor."

Tom Whelan teased, "And not the needle?"

Pathologist Larry McCarthy had multiple slides to show and proceeded with a minute, detailed, and in-depth discussion, which meant he was hedging.

"These are not easy lesions for pathologists. The four of us (referring to his fellow hospital pathologists) finally arrived at the diagnosis of multifocal intraductal carcinoma."

Glenn turned to radiotherapist Ed Quinlan: "What do you intend to do?"

Ed replied, "I haven't seen the patient, but we don't treat intraductal carcinoma on protocol."

Glenn recalled, "Coupla years ago, I had recommended bilateral simple mastectomies for similar lesions. The husband was afraid she would lose her sexuality and she decided not to have the procedure done. Here in Hawaii, the husband's decision makes a difference, I guess."

The Abortion Issue

Hawaii's 100-year-old abortion law was repealed March 11, 1970 and Hawaii became the first state to make abortion a private decision between a woman and her physician. George Goto was chairman of the HMA legislative committee and spearheaded the sentiment of the medical community to legalize abortion. (The HMA task force that brought the resolution to the assembled doctors for a vote consisted of three men: Bill Bergin, Goto, and Fred Reppun, recommending the liberalization of the law

The medical profession was divided on the abortion issue until the rubella epidemic in 1964-65. Roy Smith of the UH School of Public Health did extensive research on abortion for the Legislature in the late '60s and early '70s. Says Roy, "The legislators wanted to know whether the medical community would support the law and there was great concern that an open abortion law would turn Hawaii into a Mecca for the U.S."

In 1969, UH developed a questionnaire which was sent to 793 members of HMA; of 425 respondents, 95 percent were in favor of revision.

George recalls, "In the late '60s, Hawaii was pretty liberal. People generally knew that if they had money, they could go to Japan and get an abortion. I used to send two or three persons a week, send cablegrams, and make arrangements. In Japan, there were no real restrictions, no right-to-lifers.

"Japan is primarily Buddhist and the Church does not get involved politically. Nowadays an abortion can be done in a doctor's office and costs up to $300. The suction method is only a little more painful than a severe menstrual cramp," says George.

"But," he adds, "despite the better

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technology, the process has not become more casual, as far as the psychological trauma is concerned."

Pediatrician Herbert Nakata, past president of the National Federation of Catholic Physicians Guild, was not interested in the issue of abortion until he saw a presentation by a pro-life movement activist in the 1970s. Herbert, a member of Hawaii Right-to-Life says, "I realized it was an unnecessary destruction of human life. When you do an abortion, you take a life. As physicians, we all know this."

"Whether the fetus is deformed or not, it is still alive," maintains Herbert. "Just because it is diagnosed as handicapped, would you kill a handicapped baby after it is born?"

What does Herbert think of physicians who do abortions? "I don't think — I pray for them. Ethical practices change in medicine, but morals don't. And what is ethically acceptable may not be morally right."

Roy Smith of the School of Public Health: "I'm a pediatrician and was interested in abortion because I came to see it as a major way of preventing conditions such as mental retardation and physical handicaps. Through family planning and induced abortion, we could ensure that every child was wanted. A woman cannot be expected to plan her own reproductive life perfectly. A backup was needed."

Ben Branch, with the Queen Emma Ob-Gyn Clinic, was head of an abortion clinic, Pre-term, in Washington D.C., when the abortion law was being repealed. "At the time, we all wished every state was as liberal as Hawaii. Washington knew it — like every other city knew it — that these abortions were taking place illegally, but there was a general acceptance, though, on a formal basis it was a no-no," he says.

"Abortions were being done fairly well," Branch adds, "by compassionate people who felt it was the right thing to do. Abortion is not a good method of birth control. But contraceptives are not foolproof, and if the law was to change, the process would become less humane and illegal."

"I no longer do abortions. People involved say they gave them up because they found how horrible it is. But that wasn't my reasoning," says Branch. "I became a practicing Buddhist. Buddha said 'one shouldn't take the life of another being and to do so is a negative for one's own rebirth.' " (Excerpted from Star-Bulletin writer Carol Nakagawa's superb reporting.)

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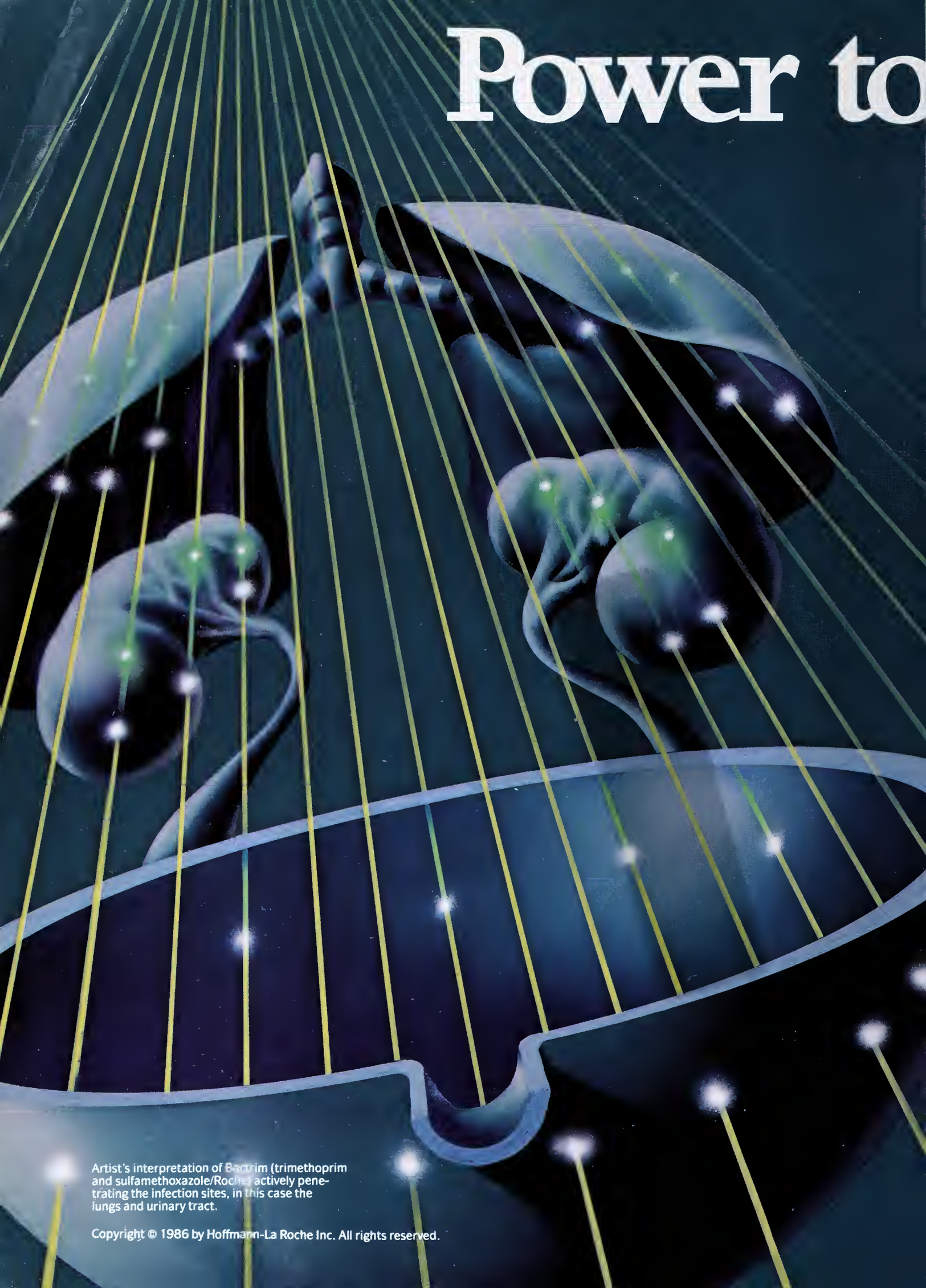

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References: 1. Rubin RH, Swartz MN: *N Engl J Med 303*:426-432, Aug 21, 1980. 2. Stamey TA, Condy M: *J Infect Dis 131*:261-266, Mar 1975. 3. BAC-DATA Medical Information Systems, Inc., Volume II, 1985. 4. Data on file, Hoffmann-La Roche Inc., Nutley, N.J.

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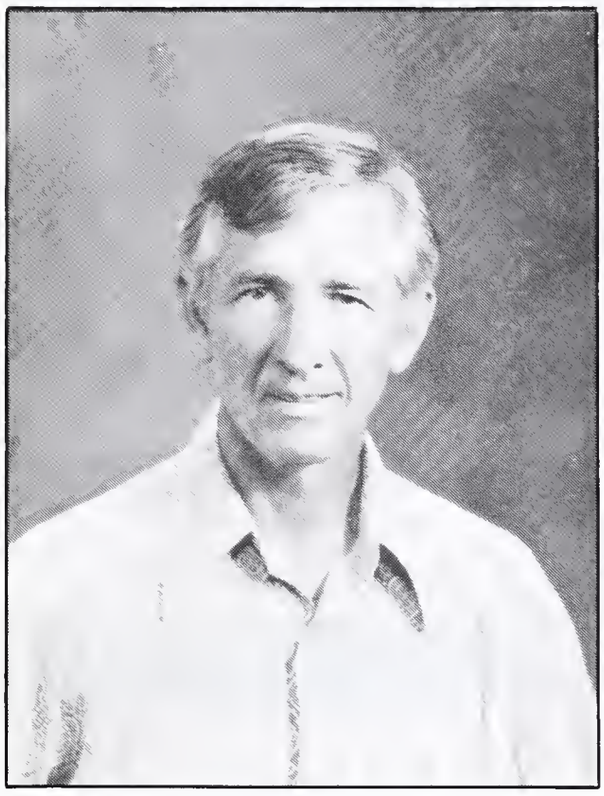

FROM THE PRESIDENT

The great majority of us in the daily practice of medicine are very active — trying to keep up with current therapy, striving to understand the constant changes in reimbursement formulas, hoping that something will be done to curb the threatening medical liability mess, and wondering how the growing glut of physicians will affect one's practice and livelihood. And yet there is more. Have you heard of RICO? If you have not, or if you have only vague recollections, then read on.

RICO is the acronym for Regulated Industries Complaints Office, and it serves as the investigative arm of the State Department of Commerce and Consumer Affairs, and thereby also, the State Board of Medical Examiners. Ten years ago, RICO came into existence with the original tort reform statute which also provided for the Medical Claims Conciliation Panels. For 7½ years, the administration did not bother to establish the office, and RICO was merely a piece of paper. However, it is now a functioning, busy, bureaucratic agency taking up a large office space on the second floor of the old post office across from Iolani Palace. What does it investigate? It has the authority to investigate just about anything and anybody involved in commerce or consumer affairs.

For example, if a disgruntled patient feels such an urge, he or she can contact RICO directly, relate the complaint, and RICO will respond with an investigation. RICO will also evaluate any peer review action coming from a hospital or medical society; it can investigate any finding against a physician emanating from the MCCP; it can also investigate any settlement of a malpractice claim of $25,000 or more, and will investigate any physician found guilty of a criminal action.

Al Costa, director of RICO, states that the great majority of complaints against physicians are evaluated and closed without further action. Officials specifically deny that they are under any pressure to mount some medical trophies on the wall to justify their role as an investigating body. RICO has a panel of 25 medical practitioners in the community, also established by law and appointed by the governor, who serve as medical investigators. Usually one is assigned per case, and he serves without remuneration. If the investigation brings out what is considered a punishable offense, RICO will recommend that the Board of Medical Examiners conduct a hearing on the charges.

Should that occur, the board will convene a hearing, which is really a minitrial, with witnesses, attorneys, and all the trappings of due process. Prior to the hearing, the accused physician is an observer to RICO's investigation, but the hearing before the board allows the defendant doctor to exercise all privileges of our judicial process. The Board of Medical Examiners can act by dismissing the complaint, or in the event it finds against the physician, the Board can exact a fine, suspend or revoke a license, recommend educational work, or a combination of the above.

So, if you receive a notice by certified mail that you are under investigation by RICO, pay attention, but do not panic. A call to your attorney would be an appropriate move on your part. Remember this whole scenario is in the legal arena, so do not be self-righteous, arrogant, or sanctimonious about the problem. Doctors immediately become pawns, often stupid ones, when we are drawn into legal battles, because we have the distorted perception that simple honesty and truth will prevail. I am not suggesting that one should ever lie — that is the road to self-destruction — but listen to your attorney and let him explain the rules of the game before you attempt to respond.

The idyllic days when doctors controlled virtually all aspects of medicine now seem like a historical fable. We are members of the most respected, admired, and trusted profession, yet we are obliged to work in a legal mine field. We are manipulated by the state and federal governments, insurance agencies, business interests, and trial attorneys. However, so long as we continue to place the interests of our patients ahead of all other matters, we will be sustained.

Wear your helmet and flak jacket.

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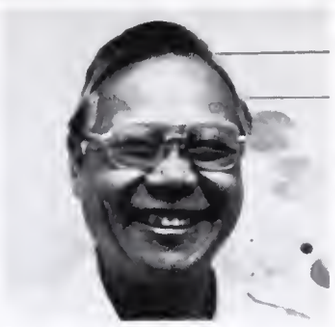

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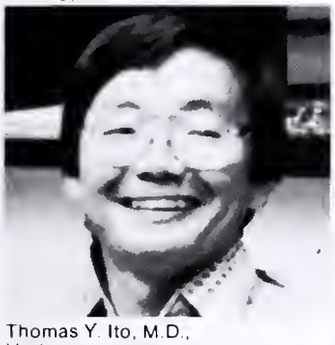

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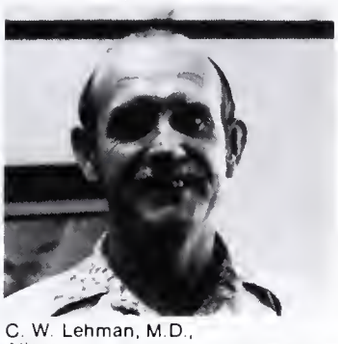

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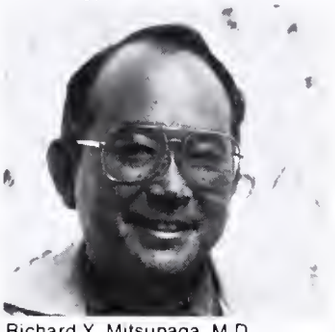

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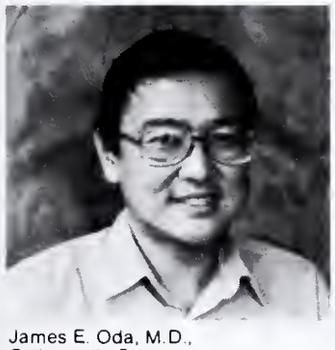

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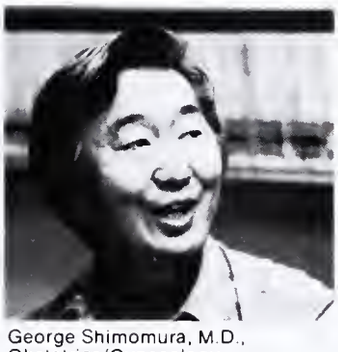

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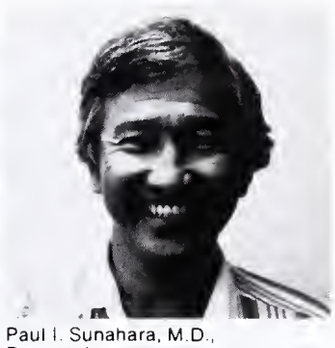

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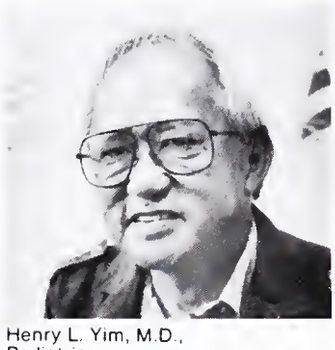

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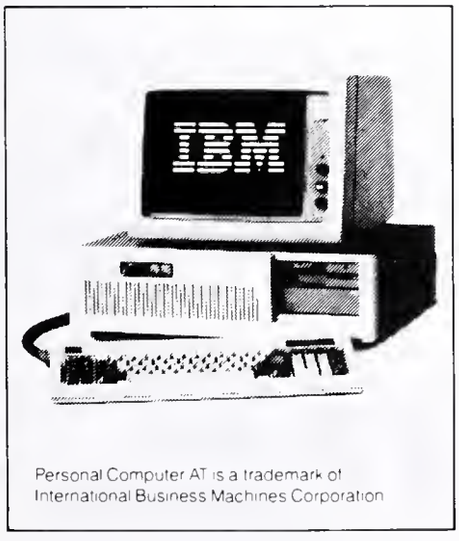

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Editorials

Out-of-court Settlement

One of the worst — if not *the* worst — evil in our medical malpractice insurance crisis is the out-of-court settlement of a suit against a doctor and/or hospital.

Justice is *not* served thereby.

"Without prejudice" signifies nothing; the presumption of guilt remains, like the fall-out from a nuclear explosion, casting forth a very gradually diminishing but damaging "black rain" of suspicion that reaches to the far corners of the physician's community of patients and even among his peers.

The plaintiff's contribution to his own detriment by negligence on his part is never exposed in open court. The plaintiff is absolved from having to prove that malpractice did occur, rather than maloccurrence. An out-of-court settlement assures the plaintiff of a "windfall" all too often.

The plaintiff's and his attorney's "gamble" pays off, usually handsomely enough to encourage others to do the same. If a million-dollar suit is settled for only $10,000, it is an enticement to pull the handle for a larger jackpot next time, next case.

As a result of the pervasiveness of suits in our society over product liability and all the rest, threatening even the structure of governments, a coalition is taking place between such groups and those concerned with liability in medical care. One such group, is ATRA, the acronym for the American Tort Reform Association, formed in January of this year and now numbering 240 component groups. Jim Irvine, a member of its steering committee, addressed the Conference of State Officers of the American Academy of Family Physicians in Kansas City in May on the subject.

"Americans must stop viewing lawsuits as something akin to a lottery that will quickly put them on Easy Street," he said.

The basis for Irvine's statement is exactly our point: Out-of-court settlement. However, instead of saddling the people with the need to change their ways, it is more practical to eliminate the rewards they anticipate.

Irvine went on to say: "The liability crisis could be called a chronic disease, a societal failing, a reflection of a generation of greed, the transformation of a competitive economy into a spoils system . . . One out of every 12 Americans will file a suit . . . In this stifling climate of lawsuit anxiety, our growth, ingenuity and spirit of pioneering are reduced."

Irvine admitted that "the problem arose through the best intentions, to compensate injured parties. However, the system has moved into one where settlements can go to those who are completely or partially at fault for their own injuries." His punch line that supports our viewpoint is: "Increased settlements induce more lawsuits to be filed."

What physician can prevail against his own defense attorney's urging to offer the plaintiff a settlement rather than go on fighting for justice and exhorbitant costs? What physician can resist the arm-twisting by his insurance carrier with the same end in view? The latter has no real intent to see that justice is served; the insurer's main interest is in reducing the pay-out. The vector of force is in the direction of a settlement out-of-court *now,* in order not only to save further expense but also to avoid the unpredictable possible heavy award at the end, even though it may have been a case of maloccurrence rather than malpractice.

There is an even greater force in favor of a non-just settlement, and that is the crushing prospect of prolonged litigation, of decisions to appeal, during which the damage to the physician's ongoing practice, to his peace of mind, to his family, etc., continues on ad infinitum and offers no respite from its travail. "Justice" as the goal of all that effort is as evanescent as the holy grail and the path to it infinitely more expensive.

If our system of processing a case through the Medical Claims Conciliation Panel is strengthened so as to be able to prove beyond the shadow of a doubt that the case was one of maloccurrence and not malpractice, then the former might be compensible under insurance coverage, provided that both patient and doctor have jointly paid the premium as an assurance of mutually shared acceptability of risk.

If the MCCP, on the other hand, demonstrates that malpractice might have been the basis of the injury, then the case should go to court and justice be meted out fairly. If there is any offer of settlement then or thereafter, it should be allowed *with prejudice,* as an admission of guilt in whole or in part. That physician should be prosecuted so as to prevent him from repeating that or similar offenses, and be punished according to statutes.

Actual malpractice should not be insurable, as it is now. The truly injured patient should be compensated fairly and the burden of payment fall directly on the shoulders of the malfaiseant. This would apply whether a settlement *with* prejudice is agreed upon, or a court of law has decided that actual malpractice did occur.

Out-of-court settlement *without* prejudice should be outlawed. It caters to the gambling instinct inherent in nearly all human beings. It obviates justice under law. It is a way to support blackmail, a way that forces a good physician or hospital to pay ransom.

J.I. Frederick Reppun, MD
Editor

International Physicians for the Prevention of Nuclear War

Our correspondent, Yosuke Noma, MD, of Kure City in the Hiroshima prefecture of Japan, and an official in the Hiroshima Prefectural Medical Association (HPMA) has given us a copy of its Report on the occasion of the visit by a delegation of officers of the International Physicians for the Prevention of Nuclear War (IPPNW) — the 1985 Nobel prize winner for peace — in mid-June this year.

The 22-page report is almost entirely in Japanese but with a few inserts in English. As is traditional in old Japan, Page 1 is on what we Westerners call "the back of the book," and the script flows from right to left and from top to bottom. It is frequently illustrated with photos of the participants in the meetings.

At midpoint in the report a full page is devoted to: IPPNW Appeal from Hiroshima, over the names of the visiting officials: Bernard Lown, MD, (USA); Evgueni Chazov, MD, (USSR); Lars Engstedt, MD, (Sweden); Ian Maddocks, MD, (Australia); Vappu Taipale, MD, (Finland); and Manuel Velasco-Suarez, MD, (Mexico).

States the report: "The agony of Hiroshima which we have now witnessed, has special significance to physicians.

"We take an ancient oath to safeguard life and health. Because medicine can offer no meaningful response to the horrors of nuclear war, physicians worldwide have acknowl-

edged their responsibility to work for the prevention of this final epidemic.

"Our common commitment compels us to join with colleagues of differing political convictions, religious persuasions and cultural backgrounds to alert humanity to the growing nuclear peril.

"Physicians learn most from their patients. Here in Hiroshima we have encountered the human tragedy of nuclear war which still persists to this day, 41 years later. We are deeply moved, morally roused and inspired with new energy in the historic task.

"But knowledge is not enough, compassion is not enough, commitment is not enough. Nor is the physician's task limited to diagnosis of a life-threatening disease.

"A prescription is demanded.

"The gravity of the world situation compels IPPNW to appeal from Hiroshima for the adoption of its medical prescription: An immediate moratorium on all nuclear explosions.

"This is a feasible, practical step towards the urgent task confronting human kind: The elimination of instruments of genocide.

"From Hiroshima we appeal to all our fellow physicians, to all our patients, to all peoples and to all governments.

"The time to act is now.

"Hiroshima, June 12, 1986."

A few pages further on to the left is the statement of the Japanese Physicians Against Nuclear War (The Japan Chapter of IPPNW) above the listed names of: Sumio Sugimoto, MD, president (and a 1985 member of the team that came to Hawaii to examine the hibakusha); Michito Ichimaro, MD, vice president; Kenjiro Yokoro, MD, secretary-general; and directors Tokuo Tsubokura, MD, and Kohel Kawahori, MD:

An Appeal from
Hiroshima and Nagasaki

"Nuclear warfare is the worst plague of the present century and for its prescription there is nothing but prevention. Medicine in any form can serve no effective role in the outbreak of nuclear warfare.

"In nuclear warfare there can be no victor nor vanquished. A preemptive strike is of no avail and under the logic of nuclear deterrent and the theory of nuclear winter, mankind and the world together with all civilization would be destined to come to an end.

"The citizens of Hiroshima and Nagasaki who first experienced the nuclear holocaust in the history of man, witnessing the horrors of nuclear weapons and radiation and the still continuing sufferings of the survivors, have continued to strongly appeal to the peoples of the entire world at every available opportunity for liquidation of nuclear arms and nuclear disarmament so that the tragedies of Hiroshima and Nagasaki will never be repeated.

"The race to expand nuclear armament by all those countries in possession of nuclear weapons has increased international tension and become a great threat to world peace and the survival of man. Nuclear weapons are no longer any means for achieving political goals, but the recent talks in Geneva between the leaders of the United States and the Soviet Union have brought about great expectations for the reopening of dialogue and cooperation.

"Hiroshima and Nagasaki were instantaneously reduced to ashes by the explosion of atomic bombs on 6 and 9 August 1945, bringing death to about 200,000 in the two cities. Rather detailed reports have been published in the literature on the physical destruction, somatic injuries, and social effects caused by the bombs, and though the fears of the atomic bombs can be conceptually understood, it is a matter of course that the true picture cannot be envisioned. However small in scale, the accident at the Chernobyl nuclear power plant has also resulted in exposure to radiation and the gradually expanding damages from this accident should be brought to mind.

"The physicians of Hiroshima and Nagasaki have been assigned the mission and responsibility of appealing to the physicians as well as the peoples of the world for their appreciation of the tragic medical and scientific outcome of atomic bomb exposure based on the results of studies of the acute and late atomic bomb effects.

"In many cases, acute injuries, be they from thermal rays, blast, or initial radiation, proved fatal. As pathological findings, acute effects ascribable to radiation were demonstrated in blood-forming tissues of the bone marrow, lymph nodes, and spleen, and degeneration of cells of the digestive tract, reproductive organs, and endocrine glands were observed. Dilation of the right ventricle of the heart, acute congestion of the liver, pulmonary emphysema, and pulmonary edema considered to be attributable to burns and traumas have been pointed out.

"Keloids, radiation cataracts, malignant tumors including leukemia, microcephaly and mental retardation in the in-utero exposed, and delayed growth and development among those exposed during childhood have been observed also as late effects. Though yet to be demonstrated, there is a possibility of neurophyschiatric disorders, accelerated aging, and genetic effects.

"Japan chapter of IPPNW is composed of physicians particularly of Hiroshima and Nagasaki Prefectural Medical Associations with the participation of physicians of other prefectures. As their routine activity, for the enhancement of the welfare of atomic bomb survivors they have engaged in the treatment and health care of survivors and have also conducted health examination of atomic bomb survivors resident in the United States, Canada, South America and Korea. These examinations have been made possible through the understanding and cooperation extended by the medical associations of these countries. At present (1985), there are about 280,000 atomic bomb survivors in total, living in Hiroshima and Nagasaki Prefectures and an estimated several thousand survivors are residing overseas.

"The prefectural and municipal authorities of Hiroshima and Nagasaki which have been restored from the ruins wrought by the atomic bomb have energetically continued their effort for the realization of eternal peace. Physicians, apart from thought and creed and with dignity of life as a doctrine, must join with other physicians in the world to continue this peace activity. This is the mission of physicians of Hiroshima and Nagasaki and is the basis of preventing the weathering of the pathetic fate of Hiroshima and Nagasaki. May 29, 1986."

We are very much indebted to Dr. Yosuke Noma for sending this to us; he was one of a large delegation of people that entertained several of us of HMA royally with dinner at a Waikiki restaurant on New Year's Eve in 1984.

Being sister cities, Hiroshima and Honolulu need very much to stand in the forefront of the burgeoning movement worldwide to eliminate all nuclear weapons from the face of planet Earth. The respective medical associations could initiate a movement for a neutral association of all in the profession of the healing arts around the world irrespective of political boundaries. That is what IPPNW is all about. When there is little chance to "treat" a disease that threatens to be epidemic in proportions, one must concentrate on "prevention."

J.I. Frederick Reppun, MD
Editor

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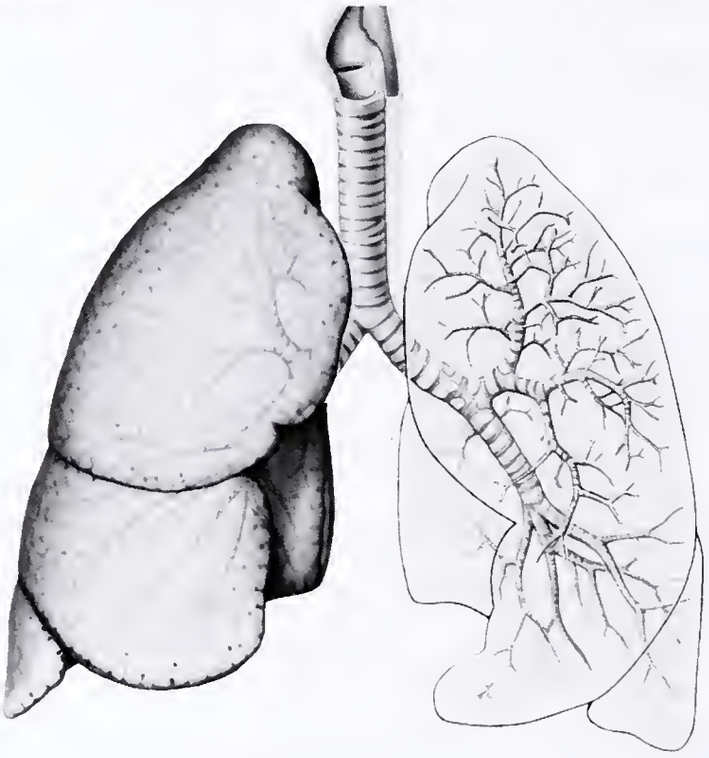

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- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment
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- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy
- Other eosinophilia, 2%; genital pruritus or vaginitis, less than 1%.

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600332

The Report of the Results of the Fifth Medical Examination of Atomic Bomb Survivors Resident in the United States and Canada

Sumio Sugimoto, MD, president of the Hiroshima Prefectural Medical Association, was one of the six-member team of Hiroshima physicians who came to Hawaii in July 1985 to conduct the examinations of the "hibakusha," as the A-bomb survivors are known.

Hiroshima is a sister city to Honolulu and the medical association of that prefecture has had a longstanding friendship with our HMA, with several visits back and forth of officials and members.

The other members of the Japanese team were C. Ito, T. Inamizu, H. Sasaki, M. Niimi, H. Yamada, and F. Doko. The examinations this time were conducted at Kuakini Medical Center, previously at The Queen's Medical Center. The local assistance was provided by the Hawaii chapter of the Committee of A-Bomb Survivors, of which Izumi Hirano serves as president and Mae Oda manager. Several local physicians helped out by doing some of the testing. Dr. Fumio Doko has provided us with a copy of the report.

These examinations of the hibakusha have been conducted since 1977 in Honolulu and on the Mainland West Coast, but for the first time they were also conducted on Maui and in Canada at Vancouver. As the word has spread, more and more of the estimated 1,000 hibakusha in North America have attended these clinics. By the 1985 examination, 682 had been identified, including 18 in Canada; 339 or ca.51 percent were examined in 1985, 79 in Hawaii which has a registered number of 124 hibakusha who have come forward. Hawaii has the second-largest number, California having 445 known, but they also reside in 18 of the United States and in two Canadian provinces.

The reasons for the relatively slow growth of the identification is probably because many of them do not wish to reveal themselves as having been exposed to radiation that may have very long-term health effects. The obtaining of life and health insurance is one, but there is also the stigma attached to revealing one-self as a member of a vanquished race, even though the "kibei nisei" or "kika nisei," as they are called upon returning to their home country, are Americans or Canadians. Some also reveal the effects in scars and disfigurement, which engender unacceptable pity, condolences, etc. and signal the hibakusha out from among the crowd.

Countering this "withdrawal" force, however, is the growing realization among the hibakusha that to have a "handbook" certifying as to their status, obtainable only in Japan apparently, is of increasing value, as most of them become elderly and perceive the need for increased assistance should they become incapacitated. The Examining Team reports that about 30 percent have "diseases" now that make them eligible for health management allowances under Japanese law (which we presume is not available to them unless they are residents of Japan).

For example, in Hiroshima, as of March 1985, there are 113,885 hibakusha who are given pretty much total medical care and subsistence if they have these certifying documents. Here in the United States, the hibakusha get no special considerations from the U.S. government. Three-fourths of the hibakusha in North America lack these documents and are, therefore, a bit anxious about it. Some even make the trip to Japan particularly to obtain such documentation, but many cannot afford to do so.

The mean age of the hibakusha in Hiroshima is 59.2 years; it is 56.3 $\pm$ 9 in North America. Interestingly, those over age 70 in North America number 8.4 percent of the hibakusha, whereas in Hiroshima they number 24 percent. Most of the hibakusha here were in their second decade of life when the A-bombs exploded over them.

In North America 97.2 percent of the hibakusha, through extensive research, have had their exposure status confirmed, i.e., where they were at the time of the explosion. They have been divided into three categories: Within two 2 km of the epicenter, which is 1.2 miles; those who were beyond that limit; and the third category included those who were categorized as "early entrants" into the zone of lethality. Of the 682 hibakusha identified in North America, 65.7 percent were "directly exposed" (39.7 percent of these within the two-kilometer perimeter; 14 individuals while in-utero). Those who were within the two-kilometer perimeter made up 27.7 percent, while 42 percent were outside that limit and 30.3 percent in the early entrants group. Most of those examined here were exposed in Hiroshima (90.7 percent) rather than in Nagasaki.

The hibakusha of record were each sent a detailed questionnaire to fill out prior to the examinations. Those that appeared were given complete physical exams, laboratory studies in detail, EKGs, etc. (details are available to those readers who wish to examine the report at HMA or HML). A perusal of the results does not reveal anything very striking; in some aspects the hibakusha in North America are healthier than their counterparts in Japan, in others it is the opposite. The statistics seem to reflect the demographic differences in lifestyle between the loci, as research at Kuakini has already pointed out (HMJ Vol. 44 No. 8 August 1985). Twenty-three died between 1983 and the 1985 examinations in the U.S.

There was also no detectable difference in health or disease between those within the two kilometers and the other two groups.

Of interest is the statistic concerning hysterectomies, which were listed as the most frequent surgical procedure done on the hibakusha. If we intrepret the given statistics correctly, 22.3 percent incidence, as compared with an incidence of 28.2 percent in the U.S. population, whereas among the hibakusha residing in Hiroshima it is from 5 percent to 9 percent! Again, does this reflect a different "lifestyle" in America, where we have long been criticized for doing too many of these?

One of the parameters studied was labeled "Past Medical History." There is no indication as to whether this represents a medical history as of the July 1985 examination, the initial exam in 1977 or a PMH up to the moment of the A-bomb explosion. We suspect it is one of the former. At any rate the cancer incidence is recorded as eight uterine, six breast and one each colon and thyroid, presumably found or recorded among the hibakusha in the PMH. There is no attempt at comparison with the expected incidence of such in the population in general, or in the population of hibakusha residing in Hiroshima, or in Japan as a whole.

These figures are meaningless, therefore. The same can be said of the various medical symptoms and signs and the laboratory work. No correction for an aging population of hibakusha seems to have been considered. Other than that one figure of 23 deaths between 1983 and 1985, there is no discussion as to whether mortality was affected by the degree of "exposure";

certainly it seems to us that there has been no effect on morbidity. Another parameter that merits interest is the psychological effect.

A lot of effort and work has been put into these studies. Local American cooperation has been manifest and should continue. We here in Hawaii, with a large Japanese ethnic component in our population, should be particularly interested and helpful. Perhaps we should offer the Hiroshima Prefectural Medical Association and its examining teams even more assistance than we have.

Please extend your attention to the accompanying report on the 1986 visit of the delegation of International Physicians for the Prevention of Nuclear War (IPPNW) to Hiroshima.

J.I. Frederick Reppun, MD
Editor

Effects of Nuclear Medicine

We reproduce from the winter 1986 Pulse of PSR/Chicago (Physicians for Social Responsibility, Chicago chapter, affiliate of the International Physicians for the Prevention of Nuclear War) an article about the JAMA and its editor-in-chief, George Lundberg, MD:

Speaking at Rush Medical College to PSR/Chicago, Lundberg said that JAMA has published articles on the effects of nuclear weapons and their medical implications since September 1945, one month after the Hiroshima-Nagasaki bombings. Since then, the Journal has devoted sections of its recent August editions to nuclear arms issues.

Last August, observing the 40th anniversary of the first use of nuclear bombs, JAMA concentrated almost its entire publication to the nuclear arms buildup and its effects on current medical practice. Several of the articles were prepared by PSR officers and members.

At the Budapest meeting of the International Physicians for Prevention of Nuclear War last year, Lundberg proposed a medical student exchange between the U.S. and the Soviet Union. He added that international relations between the two major powers would improve through the exchange as would more international travel, expanded trade, and broadened scientific and cultural interaction. Such measures, he said, would be "deterrences to any bombing attack."

Asked during the question period about readership reaction to last August's issue, Lundberg said the responses were favorable 10 or 15 to one. JAMA, since its first report on nuclear arms, has published 303 articles on the subject including discussions on radiation and radiation biology. The Journal has 352,000 readers and is distributed in 132 countries. The AMA, prior to Geneva summit, sent President Reagan its proposals for expanding scientific and cultural exchange. The proposals were acknowledged by the president. As to their effect, Lundberg said, "You never know. You work with what you can."

J.I. Frederick Reppun,
Editor

Continuing Medical Education

CALENDAR OF ACCREDITED EVENTS—CATEGORY 1

Accredited Programs of CME allow one unit of AMA credit for each hour of instruction excluding all "breaks." Some programs also are accredited for AAFP prescribed credit.

LOCAL ACCREDITED PROGRAMS
ONGOING

For a complete list of ongoing programs, please refer to the September 1985 issue of the HAWAII MEDICAL JOURNAL. Further information is available through the individual institutions or through the HMA's CME Department.

SPECIAL EVENTS

All special events should be confirmed with the CME program sponsors, as cancellations are not necessarily reported to the HAWAII MEDICAL JOURNAL.

Oct. 18-25, 1986	Operative Arthroscopy, Janet Frank, assistant director, Continuing Education in Health Sciences, UCLA Extension, 10995 Le Conte Ave., Room 614, Los Angeles, Calif. 90024, (213) 825-8423. Location: Maui.
Oct. 18-26, 1986	Annual International Body Imaging Conference, Dept. of Radiology, West Park Hospital, 22141 Roscoe Blvd., Canoga Park, Calif. 91304, (818) 340-0580 X280. Travel agent: Innovations in Travel, 9545 Reseda Blvd., Northridge, Calif. 91324, (818) 701-1164. Location: Maui Marriott.
Oct. 20-24, 1986	New Approaches to the Evaluation of Neoplastic Lymphoproliferative Disorders, co-sponsored with the University of Southern California, Dr. John Parker, professor and co-chairman, Department of Pathology, University of Southern California School of Medicine, 2025 Zonal Ave., Los Angeles, Calif. 90033, (213) 224-7121. Location: Maui.
Nov. 2-8, 1986	Districts VII-IX Continuing Medical Education, American College of Obstetrics and Gynecology, 600 Maryland Ave., SW, Suite 300E, Washington, D.C. 20024, Attn: Barbara Kallas, (202) 638-5577. Location: Hyatt Regency Maui.
Nov. 5, 1986	Neurology Update: Parkinsonism and Other Movement Disorders, Julie Woo, Straub Foundation, 888 S. King St., Honolulu 96813, (808) 523-2311. Location: Hyatt Regency, Honolulu.
Nov. 30-Dec. 3, 1986	Kawasaki Syndrome Research Conference, co-sponsored with the American Heart Association, the Center for Disease Control, and the NHLBI of the NIH. Location: Kauai Hilton and Beach Villas.
Dec. 21-27, 1986	Allergy, Immunology and the Practicing Physician, Symposium Maui Inc., Joe Harrison, MD, P.O. Box 10185, Lahaina 96761, (808) 661-8032. Location: Royal Lahaina, Kaanapali, Maui.

Influenza A: Prospects for Prevention and Control I: Public Health Importance, Epidemiology, Primary and Secondary Prevention Strategies

(The first of three parts)

David M. Morens, MD*

Influenza is the most important infectious disease in the United States today, killing thousands of persons each year and causing significant morbidity, economic loss, and loss of productivity.

Control of influenza depends upon coordinated efforts on the part of physicians, patients, and health officials to: (1) Support sensitive influenza surveillance systems and act upon surveillance data in timely fashion; (2) formulate and regularly evaluate and revise preventive strategy guidelines that target and prioritize identifiable groups of persons at risk of complications of influenza, at risk of transmitting influenza, and engaged in essential community services; and (3) develop updated inactivated vaccines and administer them to all targeted groups, and to all other individuals who wish to decrease their chance of acquiring influenza.

Although the number of persons at risk of serious complications from influenza can be expected to rise dramatically in the coming years, a brighter outlook for influenza control in the future is suggested by the accelerating development of efficacious live vaccines, by more aggressive and optimistic public health policies, and by the probability that once better vaccines are developed and widely used epidemics of influenza caused by prevalent strains can be blunted by vaccine-induced herd immunity.

The impact of influenza viruses on human health cannot be overemphasized. Each year in the United States one or more circulating influenza viruses cause significant morbidity and mortality, especially in elderly persons and those in "high-risk" categories, including persons with underlying pulmonary or cardiac disease, or serious chronic conditions such as diabetes mellitus[1].

Though accurate estimation of influenza-specific rates of morbidity, hospitalization, and death is impeded by the difficulty in establishing the diagnosis in individuals, in case reporting, in wide yearly fluctuations in incidence, and in the contribution to the total disease picture of other medically important conditions and supervening infectious agents, surveillance-based and population-based data from a variety of sources suggest that influenza may account for a rough annual mean of 20,000 deaths, and a larger but undetermined number of total hospitalizations and hospitalizations of high-risk patients in the United States.[2-4]

In one recent season alone (1977-1978), the introduction of a new strain [A/USSR/77(H1N1)]* and the first full year of activity of a second [A/Texas/77(H3N2)] were associated with 30,000 excess deaths (Department of Health, Education, and Welfare. Secretary's Conference on Influenza. July 26, 1978. Summary Report. Published Aug. 7, 1978).

The best estimates of influenza mortality come from the determination of excess deaths attributed to either pneumonia, influenza, or both conditions, recorded by physicians on death certificates and reported weekly by health officials in 121 American cities, including Honolulu, to the U.S. Centers for Disease Control (CDC). While it is impossible to determine the exact causes of death in most such individual cases identified by this surveillance system, many years of experience show that to a remarkable degree the excess mortality is both closely correlated with influenza circulation, and attributable to it.

Influenza is the single most important cause of pneumonia-related death and morbidity in the United States by virtue

Associate Professor, Department of Tropical Medicine and Medical Microbiology, University of Hawaii School of Medicine, Honolulu, Hawaii.

of its distinctive epidemiologic features and its ability to cause both primary pneumonia and to induce serious secondary pneumonias with a variety of bacterial agents. Influenza must also be considered to have a "holocaust potential" since it has caused, in the past, astonishingly high mortality in healthy persons. Most notably, in 1918, when the total U.S. population was 103 million, half a million persons died of influenza[3]. Extrapolated to the 1985 U.S. population, an influenza epidemic with the same attack rate and case-fatality ratio would produce 1,214,000 deaths in the United States within a matter of months.

Influenza is also recognized as an important cause of nosocomial outbreaks in hospitals, nurseries, and nursing homes, infecting disproportionately the very patients at risk of serious complications.[5-7] In children, brochiolitis, bronchitis, acute bronchospasm, croup, laryngitis, and exacerbations of asthma are common sequellae of influenza infection. Both influenza A and B have been linked to Reye syndrome.[8] Influenza viruses have also been associated with a variety of other nonrespiratory conditions in children and adults including myocarditis and pericarditis, vasculitis and immune complex diseases, aseptic meningitis and encephalitis, Guillain-Barre syndrome, myositis, rhabdomyolysis, acute myoglobinuric renal failure and, in Asia and Oceania, reports of influenza-associated "hemorrhagic fevers."[1, 2, 9-12]

There is no doubt that influenza is an important cause of death and illness in Hawaii. For example, preliminary death certificate data compiled by the Hawaii Department of Health (kindly provided by Arthur P. Liang, MD, MPH, Director, Communicable Disease Division, and Steven Terrell-Perica, MA, MPH) suggest that in Hawaii 72 excess deaths occurred in the peak months of the most recent complete influenza season (December 1984-March 1985).

Although comparable morbidity figures are not available, it is certain, based upon past experience in Hawaii, that these unfortunate deaths represent the tip of a very large iceberg that includes serious illnesses and hospitalizations, incapacitating disease, time lost from work and school, considerable medical expense, other economic loss, and loss of productivity.

Furthermore, the importance of influenza in Hawaii is greater than in most other states and localities; Hawaii has substantial civilian and military air traffic from Asia, where new and virulent strains typically originate, and an extended season during which influenza viruses may circulate, as demonstrated by the influenza virus isolation program of the Virology Section, Laboratories Branch, Hawaii State Department of Health. In addition, crowded living conditions probably facilitate spread of introduced strains on Oahu.

Regardless of the extent to which influenza incidence increases or declines in the future, the incidence of complications of influenza infection in Hawaii and in the rest of the United States is destined to increase, probably dramatically, as the aging population will include more and more persons with chronic diseases that constitute risk co-factors. In 1985 there were 32 million Americans over age 65; by the year 2,000 an estimated 51 million persons will be over 65. As modern medicine continues to extend life expectancy, more elderly Americans will develop chronic conditions that increase the risk of influenza complications. Also to be considered is the accelerating trend to place debilitated, elderly and ill persons in nursing homes and chronic care hospital facilities, rather than caring for them at home, thereby increasing their likelihood of influenza acquisition by institutional transmission.

The Epidemiology of Influenza A

Although prevention and control of influenza is understandably a top health priority, progress in this area has been disappointingly slow. In part, the trouble comes from the relationship between virus and man. Many excellent reviews of these epidemiologic aspects of influenza, including some which directly or indirectly address the theoretical implications for prevention strategies, are available.[1-3, 14-16] Perhaps the most basic difference between the epidemiology of influenza A infection and that of other viral diseases is that influenza A virus is not only highly adapted to human beings but appears also to be unique in its extensive and intimate adaptation to human populations. It is doubtful that the influenza A virus could even survive without relatively large interacting human populations in contact with animal "reservoirs" of related viruses.

Neither of these conditions were obtained in man's hunter-gatherer days (before about 8,000 B.C.), and perhaps not until as late as 3,000 B.C. or significantly later. Although it is not known how long influenza viruses have been able to infect humans, circumstantial evidence that the current survival strategy of influenza A virus is based upon its ability to adapt to populations as a whole, rather than to the individuals within them, suggests that the influenza viruses we know today could have evolved at any time after man began to organize into civilizations.

What factors mitigate against a more typical survival strategy? And what host and environmental factors may be selective for a "population" strategy? These important questions must be answered if we are to successfully control influenza A. First, like other viruses transmitted by the aerosol route, or by the secretion-to-fomite/secretion-to-hand routes, human influenza A viruses are not maintained by animal or insect vector hosts. Secondly, they are characterized by a short incubation period, high degree of transmissibility, and short duration of excretion. Thirdly, they do not establish persistent or latent infections.

These three features alone would rapidly spell extinction for most viruses: The first introduction of such a virus into a population would quickly cause widespread infection, the virus would disappear in the absence of additional susceptible hosts and, assuming protective immunity was induced, it would be prevented from reappearing thereafter. To a great extent, the suggested elements of the influenza A survival strategy, listed below, reflect apparent adaptation to the considerable challenge presented by immunity in host populations:

1—By virtue of their ability to establish mostly local infection of cells lining the respiratory tract, influenza viruses avoid significant confrontation with the systemic humoral immune system, and in some instances may not induce particularly high or long-lasting levels of protective circulating antibody.

2—Some evidence suggests that several animal species may function not as virus reservoirs, but as factories for "genetic refitting" of human influenza A viruses, able to construct and release new virus strains with antigenic sites not recognized by protective antibodies prevalent in human populations,[3] and what is more important, to construct them in isolation from the selection pressures of human antibody.

3—Another population-adaptive genetic mechanism is that of reassortment of RNA genome segments, which occurs at high frequency *in vitro* and perhaps *in vivo*. Any mutation which occurs in any genome segment may thus ultimately find

(Continued on page 351)

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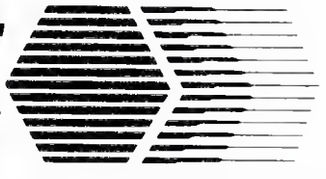

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(Continued from page 348)

its way to other wild influenza strains, providing a fresh and seemingly endless supply of new virus phenotypes. If reassortment occurs in animal hosts that do not develop illness, as appears to be the case, the reassortants have an added survival advantage because of their seclusion from first-stage selection pressures in nonhuman hosts.

4—A final population-adaptive mechanism is that of genetic changes on the genome of individual RNA segments coding for the virus hemagglutinins. These changes, occuring at restricted loci, appear to cause disproportionate changes in antigenicity at certain critical sites on the hemagglutinin, the external structure highly associated with infectivity properties. Accumulating molecular evidence[17-21] suggests the following scenario: The hemagglutinins are composed of two S-linked polypeptides (HA1 and HA2) coiled into a "lollipop-on-a-stick" configuration of arranged trimers, the HA2 comprising much of the stick, stabilized by oligosaccharides, and the HA1 comprising all of the external "lollipop" end — a globular protein with a distal attachment site capable of interacting with human cell surface receptors. The attachment site is a pit surrounded by rims of the folded HA1 sequence, and three of four major antigenic sites on the hemagglutinin appear to lie along the rim of the attachment pit, susceptible to significant antigenic alteration by as little as one amino acid substitution. From a teleologic perspective it may be speculated that influenza A viruses have evolved a programmed genetic instability at restricted RNA sites coding for critical epitopes around the attachment pit in response to the selective pressures of antibodies, encountered in human populations, that form a complex with the "previous" versions of the epitopes. Such antibodies presumably prevent cell infection by steric hindrance or induction of conformational change, but are helpless when a new strain appears because they can no longer recognize the critical epitopes. When the population prevalence of antibody to circulating strains is too large, or the mean antibody titer too high, an influenza variant with a novel antigenic site along the HA rim, whether arising *de novo,* or via reassortment with an animal or another human influenza virus, has a competitive advantage in circumventing the defense mounted by antibody molecules prevalent in the population.

Primary and Secondary Prevention of Influenza A

Such speculations about the dynamic and unbalanced commensal relationship between influenza viruses and human populations to which they are evolutionarily adapted suggest that influenza can be conquered only by extraordinary measures based upon thorough understanding of host-virus relationships. It is apparent that measures for control of many other virus diseases are not applicable to influenza A. Quarantine, isolation, school or work exclusion and other measures to limit virus spread from infected individuals to others are impossible because the influenza incubation period is too short to permit identification of exposed individuals, the virus is excreted before symptoms begin, clinical manifestations may be nonspecific or absent, infection can arise from aerosolized secretions inhaled in public and other places that cannot be identified as posing a risk of infection and because the virus can be transmitted effectively anywhere—not only in school, work and public locations, but also at home within the family and in the hospital.

Until recently, drug treatment effective in limiting spread or preventing infection after exposure was not available. Approval of amantadine for treatment and prevention appears to be unlikely to introduce a meaningful role for antiviral chemotherapy in public health efforts to prevent influenza in open communities, because of safety considerations, compliance, expense, and uncertainties about determining when and under what circumstances medication should be administered, and when discontinued.

* Strains of influenza virus are assigned a code name that indicates the virus type (only types A and B are commonly human pathogens), the place and year of isolation, and the two major surface proteins that determine strain identity, antigenicity, and infectivity, the hemagglutinin (H) and the neuraminidase (N) proteins. In the period 1978-85 only H1N1 and H3N2 influenza A viruses have circulated.

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Influenza A: Prospects for Prevention and Control II: Immunization — Current Status and Hope for the Future

(The second of three parts)

David M. Morens, MD*

Immunization with inactivated influenza vaccine is the only current available option to prevent infection of individuals and, it will be argued, community outbreaks of influenza. This was also the case 45 years ago when influenza vaccine development was first undertaken. The memory of the 1918 epidemic with 20 million deaths worldwide compelled military health officials at the dawn of World War II to create both a Commission on Influenza and a Commission on Immunization with in the newly formed Armed Forces Epidemiology Board. Under board-sponsorship, and with the collaboration of the Rockefeller Institute and American universities, a formalin-inactivated influenza vaccine was produced in the allantoic fluid of embryonated eggs.[1] After the war, under sponsorship of the National Institutes of Health, development of inactivated (killed) influenza vaccines was continued, and products were eventually licensed for general use.

In recent years, vaccination has been recommended for persons in "high-risk" categories, including, in 1985, persons of any age with serious chronic pulmonary or cardiovascular disease and residents of nursing homes and other chronic care facilities. In addition, vaccination is now recommended for all individuals over age 65, regardless of health status, and for persons of any age with serious "metabolic" or other chronic diseases such as diabetes mellitus, renal dysfunction, asthma, anemia, collagen vascular disease, immunosuppression, etc.

However, in the past 20 years the medical and lay communities have been unenthusiastic about influenza vaccines. While the importance of preventing influenza was never in doubt during this time, lack of public acceptance of influenza vaccination discouraged health officials from formulating aggressive vaccination strategies and policies. This led to influenza vaccination not even being made available to all persons at high risk of complications. At the same time, official policies targeting limited segments of the public, presented with implicit skepticism, reinforced the public's negative attitude, resulting in a vicious circle. The hope for a turnaround in the situation was further eroded in 1976-77 with the "Swine Flu Affair": The failure of a predicted HswlN1 epidemic to materialize, the temporal association of vaccination with Guillain-Barre syndrome for several hundred Americans[2], the outcry that followed, and the premature termination of that year's vaccination program.

Many observers and public health experts believe that the inactivated influenza vaccines, as currently constituted, are unlikely to gain full public acceptance in the foreseeable future. Although the reasons for this lack of public acceptance are multiple, they must be carefully considered in the context of development of new vaccines, or change in vaccination policy:

1—The public believes that influenza is not a serious problem.

2—There is widespread aversion to intramuscular injections.

3—Many persons remember or have heard about the reactogenicity of early influenza vaccine preparations.

4—Yearly revaccination with an 'updated' preparation is required to maintain protective immunity.

5—Not all vaccined persons develop protective immunity.

6—There is a growing trend toward public skepticism about recommendations of any kind from government and other authority figures.

Yet while reluctance to embrace current influenza vaccines persists, the need for vaccine-based prevention programs is steadily increasing. Recent revisions[3] of vaccination recommendations by the ACIP (the Immunization Practice Advisory Committee of the U.S. Public Health Service) herald a new era of influenza vaccine strategy. ACIP has recently expanded its policy of targeting only high-risk individuals for vaccination, to include recommending vaccination for: (1) healthy persons at risk of transmitting influenza to high-risk persons (e.g., health care personnel); (2) healthy persons who provide essential community services (e.g., policemen), and (3) healthy individuals who wish to reduce the chance of acquiring influenza.

Although the aim is not stated by advisory groups or other authorities, it seems inevitable to the author that a consensus of preventive medicine opinion in the United States will eventually lead to an inclusive influenza vaccination policy, i.e. a policy that addresses not only individual prevention but prevention or control of influenza epidemics by maintaining population herd-immunity. In view of current influenza vaccine immunogenicity, the duration of immunity conferred by immunization, antigenic drift and shift, and poor public and medical acceptance, it may be reasonably questioned whether such a goal can ever be achieved with existing vaccines.

Live Influenza A Vaccines — Hope for the Future?

In view of the image problem and the incomplete efficacy of recent inactivated influenza vaccines, particularly for im-

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TABLE 1

Clinical Trials with A/Ann Arbor/6/60(H2N2)ca and H3N2 Reassortment Progeny Reported in the Medical/Scientific Literature for which Inferences Are Made About the Relationship Between Infection as Determined By Virus Shedding and Seroconversion

Year	Author	Ref. No.	Clone/ Strain	Host	Dose	Serologic Criteria*	N	SP** SN	SN SC	SP SP	SP SC
1973	Kitayama	20	Master Strain	Adult inmates	4.8 $TCID_{50}$	HI-SC	9	0/4	0/5	0/2	0/2
1977	Maassab	21	CR-I9	Young adults	7.2 $TCID_{50}$	HI; NI; Nt	I3	0/5	7/8	—	—
1977	Davenport	23	A/Queens/6/72	College students	6.3 EID_{50}	HI-SC	25	2/2	9/9	0/8	6/6
1979	Murphy	24	CR-I8	Adults	8.5 $TCID_{50}$	HI-S; NI-S; Nt-NW	I2	—	9/12	—	—
				Adults	7.5 $TCID_{50}$	HI-S; NI-S; Nt-NW	I0	0/5	5/5	—	—
			CR-19	Adults	7.0 $TCID_{50}$	HI-S; NI-S; Nt-NW	I3	0/5	7/8	—	—
I980	Moritz	28	CR-22	College students	7.8 EID_{50}	HI-S	9	—	4/6	—	—
					6.8 EID_{50}	HI-S	9	0/1	2/3	—	3/5
					5.8 EID_{50}	HI-S	9	0/2	I/4	0/3	—
					4.8 EID_{50}	HI-S	10	3/8	—	0/2	—
I98I	Murphy	30	CR-29 c12	Adults	7.5 $TCID_{50}$	HI-S; NI-S; EIA-S	24	2/8	6/16	—	—
			CR-3I c13	Adults	7.7 $TCID_{50}$	HI-S; NI-S; EIA-S	12	2/2	6/I0	—	—
			CR-3I cI10	Adults	7.7 $TCID_{50}$	HI-S; NI-S; EIA-S	17	2/3	3/14	—	—
I982	Wright	45	CR-29	Young children	6.4 $TCID_{50}$	HI-S	10	—	I0/10	—	—
I983	Clements	34	CR-29	Young adults	7.5 $TCID_{50}$	HI-S; EIA-S; EIA/A/NW	24	5/I2	I2/I2	—	—
			CR-29	"	6.5 $TCID_{50}$	HI-S; EIA-S; EIA/A/NW	I5	5/9	6/6	—	—
			CR-29	"	5.5 $TCID_{50}$	HI-S; EIA-S; EIA/A/NW	15	5/I2	3/3	—	—
			CR-29	"	4.5 $TCID_{50}$	HI-S: EIA-S; EIA/A/NW	I2	2/11	I/1	—	—
1984	Clements	37	CR-48	Young adults	7.5 $TCID_{50}$	HI-S; NI-S; EIA/A/NW	I6	3/5	II/11	—	—
I984	Clements	39	CR-48	Adults	7.5 $TCID_{50}$	NI-S; NI-S; EIA/A/NW	34	0/5	5/29	—	—
				Adults	7.0 $TCID_{50}$	NI-S; NI-S; EIA/A/NW	31	0/6	6/25	—	—
				Adults	6.5 $TCID_{50}$	NI-S; NI-S; EIA/A/NW	I8	0/8	3/10	—	—
				Adults	5.5 $TCID_{50}$	NI-S; NI-S; EIA/A/NW	32	1/20	3/12	—	—
				Adults	4.5 $TCID_{50}$	NI-S; NI-S; EIA/A/NW	I6	0/I5	0/1	—	—

*S = Serum, NW = nasal wash, A = IgA, SC = Seroconversion

**SN = Seronegative, SP = Seropositive. SN/SN = seronegative before and after vaccination, SN/SC = vaccination associated seroconversion, etc.

mune individuals,[4,5,6] vaccination with live influenza viruses must be considered. Theoretical and real advantages of live vaccines suggest that they could live up to newly optimistic public health policies. Attributes of an ideal live influenza vaccine would include the following: Rapidity and ease of development, inexpensive manufacture in large volumes and doses, ability to infect a high proportion of vaccinees without inducing clinical illness, immunogenicity, induction of immediate and long-lasting protective immunity, induction of both secretory and humoral immunity, lack of association with neurologic or other serious complications, ease of administration and acceptance by physicians, patients, and health officials.

Live influenza vaccines were first proposed in 1937,[7] at a time when America was disenchanted by the unfortunate and widely publicized 1935 failure of the Kolmer live polio vaccine.[8] But World War II, which began in 1939, led America to reconsider. The first live influenza vaccine, developed under the Armed Forced Epidemology Board, was a strain selected from egg culture. Attenuation by serial passage in eggs was soon accomplished. Before the advent of tissue culture, however, it became apparent that without reliable *in vitro* or animal markers of attenuation, it would be difficult to select attenuated viruses. Under the best of circumstances, early and often unsuccessful human trials were necessary. Influenza virus growth in tissue and organ culture offered few advantages.

From a practical point of view the remarkable ability of influenza viruses to change antigenically, and the corresponding need to constantly develop new vaccines for immediate production and use was disheartening. A more reasonable strategy seemed to be to pervert the genetic adaptational ability of influenza viruses by identifying or creating attenuated master strains to use as donors of reassortant genetic material to other strains.

This strategy took three parallel paths: Development of host-range mutants, temperature-sensitive (ts) mutants and cold-adapted (ca) mutants. The host-range mutants used as genetic donors for live vaccines have been high-passage strains that are attentuated for man.[9] However, in clinical trials of reassortants between donor-mutant and wild strains, even when associated with contribution of all six donor RNA segments not coding for glycoprotein, virulence properties remained.[10]

Development of ts strains by cultivation in the presence of a mutagen (e.g. 5-fluoro-uracil) seemed more promising. After induction of mutation, strains were selected for growth prop-

TABLE 2

Influenza Seropositivity Rates in Healthy Young Adults* Determined By Screening of Serially Diluted Serum By HI, 1979-84

Year Serum Obtained	N	HI Antigen Source	% Seropositivity By Influenza Type H1N1	H3N2
1979	72	A/Hong Kong/8/68	—	71%
	72	A/Victoria/3/75	—	50%
1981	65	A/Hong Kong/8/68	—	78%
1982	66	A/Brazil/11/78	—	18%
	66	A/Bangkok/1/79	—	30%
1983	62	A/Bangkok/1/79	—	21%
	62	A/England/333/80	18%	—
1984	74	A/Philippines/2/82	—	49%
	74	A/England/333/80	20%	—
1985*	26	A/Philippines/2/82	—	69%

* Serums obtained from department faculty and staff in the annual serum banking, Jan. 28, 1985, were tested against A/Philippines/2/82 HA. A large-scale community-wide outbreak of influenza A had peaked at about the same time. About 20 percent of those donating serum had had influenza or recent influenza-like illness.

erties at low temperature. In this way a promising initial donor was identified, and reassortants were produced with this ts-1[E] phenotype.[11] By many criteria the ts-1[E] series was successful, yet reassortants sometimes caused fever in seronegative adults[12] and illnesses in children that were associated with ts-reversion[13,14]. A second ts-donor was produced with two ts-lesions on different complementation groups (ts-1A2), in the hope that "double reversion" would not occur.[15]

In general, ts-1A2 vaccines were an improvement over the first generation ts-1[E], but in one instance of a child vaccinated with a ts-1A2 reassortant with A/Alaska/77 (H3N2), a "pseudorevertant" was produced by mutation at an unrelated site, resulting in suppression of the ts-property altogether.[16,17] It thus appeared that some of the ts mutant reassortants possessed an unexpected degree of genetic instability.

Development of cold-adapted (ca) influenza vaccines had its inspirational beginning with the success of the cold-adapted polio vaccine of Sabin, developed in 1957 and administered in the United States and most other countries since 1961. Like live polio vaccines, live influenza vaccines administered on a community-wide basis could provide an extra advantage over killed vaccines in epidemic control by competing with wild viruses for the same hosts.

In 1967, Maassab reported development of ca vaccines,[18] adapted to 25 degrees Celsius, two of which were tested in human volunteers and found to be attenuated.[19,20] One of these ca strains, A/Ann Arbor/6/60(H2N2), has subsequently been used as a donor to co-infect cells with wild strains to produce ca reassortants. Though the resulting vaccines have varied in biologic properties, they all contain a majority of the genome of the ca donor parent, derived from reassortment in tissue culture at 25 degrees Celsius, in the presence of H2 and N2 antibody, to assure selection of progeny with not only wild H and N but, ideally, ca donor internal and nonstructural proteins.

Finally, they have been cloned by the plaque pick method and checked by polyacrylamide gel electrophoresis to verify their purity and parental history. From a practical point of view it should thus be valid to consider progeny vaccines that contain all six RNA segments coding nonglycoprotein equivalent as identical with respect to temperature-related growth properties, genetic stability, and reactogenicity, but of different antigenicity. That is, they should be identical in almost all respects with the following two exceptions: (1) Ability to induce antibody and cell-mediated immune response in the seronegative host, and (2) infectivity properties modified by pre-existing immunity in the host to the wild H and N.

As of mid-1985, results of at least 27 clinical trials of 794 adults and 209 children (1,005 persons in all) with (H1N1) and (H3N2) ca progeny of the A/Ann Arbor/6/60/(H2N2) ca strain have been published.[21-43] It appears that when reassortant progency contain all six donor nonglycoprotein genes they are genetically stable, nonreactogenic, of high immunogenicity for seronegative hosts at intermediate-to-high doses, and of intermediate immunogenicity for seropositive hosts.

Combined data from several sources in which adequate vaccine doses were given (>6.5 $TCID_{50}$) and, where data were available, in which seroconversion was determined by more than one serologic test, suggest an approximate seroconversion rate in seronegative persons of about 86 percent for (H1N1) vaccines and 72 percent for (H3N2) vaccines, and in initially seropositive persons of about 56 percent.[26, 34, 38] In one study, however, a paradoxically increased neutralization seroconversion in vaccinated persons who were seropositive was noted.[33]

Virus shedding, indicative of infection, is usually of low titer and of comparatively short duration[26, 27, 30, 34, 38] in adults. Transmission to others is typically not found.[23, 28, 29] Seroconversion rates in seronegative children appear to be equivalent to those of adults after vaccination with a "childhood" dose of lower titer[32] and preliminary data indicate that when administered in combination, the (H1N1) and (H3N2) ca vaccines are just as immunogenic as when administered singly.[44] Perhaps more importantly, vaccine-induced immunity appears to correlate with protection from challenge by wild strains associated with community (H3N2) outbreaks,[32, 42] or wild (H3N2) experimental challenge,[37] and from experimental infection with subsequently administered (H1N1) ca strains.[35, 38]

But apart from the harshest of tests — infection with wild virus — how can we reliably evaluate the effectiveness of these vaccines in study subjects? Is antibody alone protective? If so, is there a threshold level below which protection no longer occurs? These are important questions to be answered if we are to test extensively the vaccines in people, and eventually to license and use them. Unfortunately, based upon the extensive clinical trials with the ca vaccines, [21-43] it appears that no single test can document infection, let alone protection, in all vaccinees. Traditionally, immunization with

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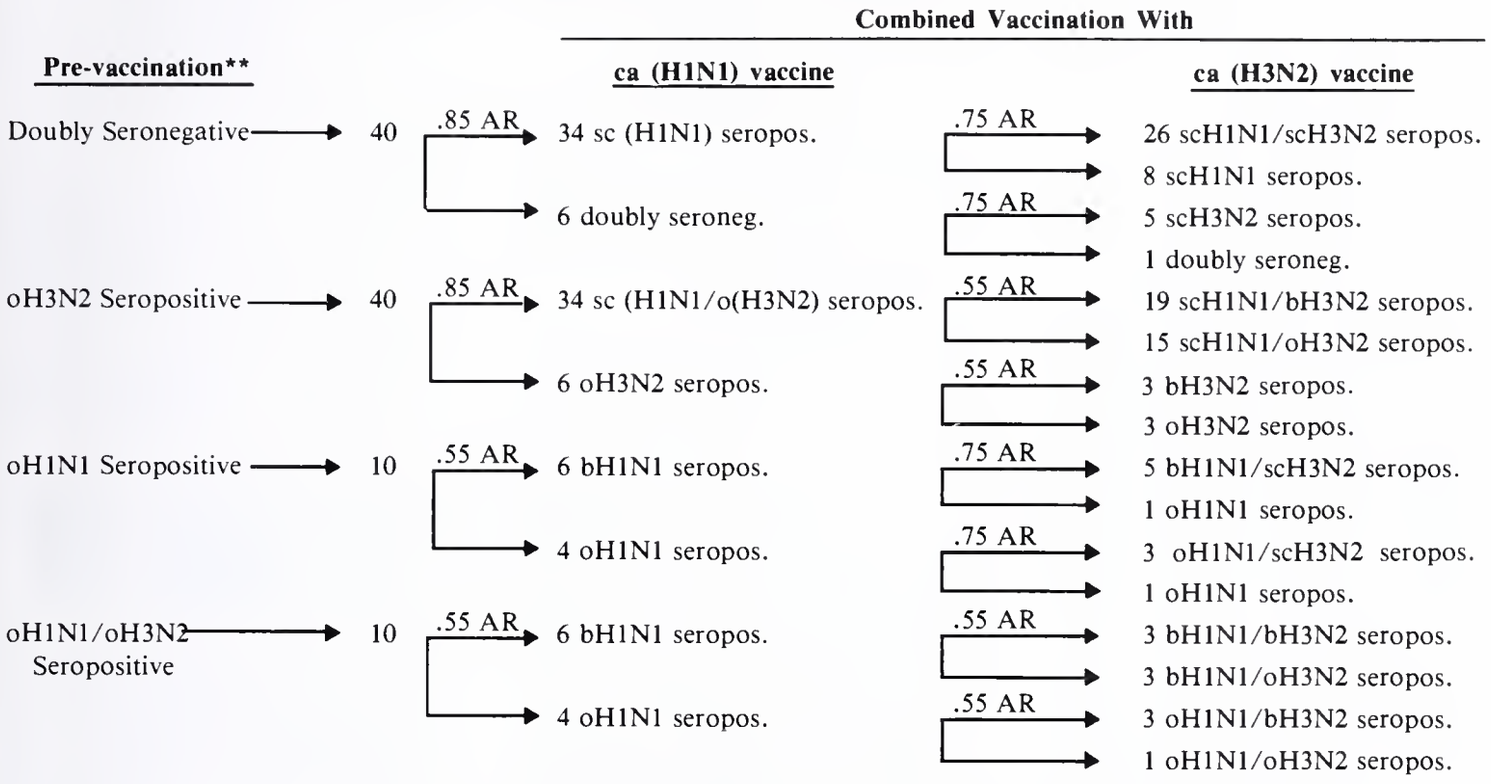
TABLE 3

Estimated Seroconversion Rates and Pre- and Post-Vaccination Antibody Prevalence For 100 Adult Residents of Oahu Vaccinated With Combined (H1N1/H3N2) ca Vaccine*



*For purposes of clarity, vaccination flow diagram is presented as if the two vaccines were administered sequentially, rather than in combined form.
**AR-'Attack rate' for infection determined by seroconversion only (excluding viral shedding without seroconversion in serum HI or NI, or nasal antibody) based upon estimates from clinical trial data present in text.
sc, o, b Subscripts refer to history of antibody development,
sc-seroconversion from seronegative to seropositive
o-"old" antibody within four—fold tier range pre- and post-vaccination of persons initially seropositive
b-'boost', four-fold or greater titer rise in seropositive individuals after vaccination

ca vaccine has been proved by serum hemagglutination inhibition (HI) seroconversion. Yet many individuals who do not show seroconversion in paired serums by HI do show seroconversion in nasal-wash specimens (e.g., those that contain influenza hemagglutinin(HA)-reactive secretory IgA by ELISA), or in other tests of secretory or serum antibody, such as serum ELISA.

Investigators have increasingly sought to document immunization by more than one test, typically evaluating both serum and secretory antibody titer change to improve sensitivity in detecting ca vaccine "takes." Among the tests most commonly employed to document immunization are the serum HI and neuraminidase inhibition (NI) tests, the serum HA-ELISA, the HA-reactive IgA ELISA to detect nasal-wash antibody[45] and, in some trials, neutralizing antibody. Of these assays, those detecting secretory immunity may be most relevant biologically, since the nose and throat are the portal of entry of influenza viruses. The ca vaccine trial experience suggests that if the serum HA-ELISA and nasal-wash HA-ELISA are used, little additional information is to be gained by adding other procedures.

In most of these studies virus isolation was attempted, both for the purpose of documenting infection, and to look for revertants. Almost all individuals who seroconvert (e.g., in the serum HI test) shed ca virus,[39] whereas some who shed virus do not seroconvert by HI[30,34] suggesting that the HI is insensitive in detecting ca virus infection. However, when multiple tests to document serologic responses to vaccination are performed the overall sensitivity increases to the point where the value of isolation solely for the purpose of detecting infection is questionable (Table 1).

For example, in a recent report of Clements and colleagues[39] only one of 54 seronegative ca vaccinees (<2 percent) who received vaccine CR-48, and in whom seroconversion did not occur in the HI, NI, and nasal HA-ELISA tests, had detectable virus shedding. While other investigators have documented a higher rate of infection in serologic nonresponders,[28, 30] it is questionable whether such infection is of biologic relevance, particularly in view of the fact that immunity from influenza as determined by resistance to challenge is associated with detectable, intermediate-level antibody.

Good data about the response to subsequent wild influenza challenge in ca-vaccine nonresponders who shed virus do not exist, but it seems likely they would be of similar susceptibility to those vaccinated but not shedding virus, and to those not vaccinated at all. Based upon these extensive data, the National Institutes of Health (NIH) have agreed to fund a major five-year ca vaccine trial in an "open" population. After considering Honolulu and several other study sites

TABLE 4

Before Vaccination	After Initial Vaccination
40 percent doubly seronegative	1 percent doubly seronegative
10 percent (H1N1) + (H3N2) seropositive	78 percent (H1N1) + (H3N2) seropositive
40 percent (H3N2) seropositive	11 percent (H3N2) seropositive
10 percent (H1N1) seropositive	10 percent (H1N1) seropositive

for this longitudinal study, a Nashville, Tennessee, community was ultimately selected.

Extrapolating information reviewed above to an open population, ca vaccines could be expected to be safe for vaccinees and their contacts, genetically stable, and associated with an acceptable rate of seroconversion. For example, based upon HI data from Oahu (University of Hawaii Department of Tropical Medicine, Table 2), vaccination of a representative adult Oahu population with a vaccine containing combined (H1N1)ca and (H3N2)ca reassortants (Table 3) would be expected to result in the post-vaccination seroprevalence, rates show in Table 4.

These estimates ignore possible virus interference and cross-subtype protection. After the first vaccination with a live combined ca vaccine 78 percent of vaccinees would have (H1N1)/(H3N2) seropositivity, including 26 percent with seroconversion from doubly seronegative to doubly seropositive, 19 percent with (H1N1) seroconversion/(H3N2) titer "boost," 15 percent with (H1N1) seroconversion/(H3N2) titer stability, 5 percent with (H1N1) titer boost/(H3N2) seroconversion, 3 percent each with (H1N1) titer stability/(H3N2) seroconversion, (H1N1)/(H3N2) double titer boosts, (H1N1) tier boost/(H3N2) titer stability, and (H1N1) titer stability/(H3N2) titer boost and, finally, 1 percent would have double (H1N1)/(H3N2) seronegativity.

Thus, even current live vaccines appear to be as immunogenic as their inactivated counterparts. It is to be hoped that nasal instillation would be more acceptable to recipients than intramuscular injection, necessary for the current inactivated vaccines.

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HMSA Answers Physicians' Questions

Q. Please identify each of the three HMSA plans designed for senior citizens and clarify the benefit structure for each of these plans.

A: HMSA has *two* plans currently available to Hawaii's citizens age 65 and over — 65-C Plus and Medicare Plus. These plans offer more simplified and economical financial protection for our senior citizens while maintaining the patient's freedom to choose their physician. Both plans are underwritten by HMSA under special contracts with the federal government. Under these contracts, HMSA agrees to pay full Medicare benefits to members or providers of care, but only receives from the federal government a reduced amount per Medicare member (95 percent) of average Medicare expenses. Any shortfall would be underwritten by HMSA with any excess income being used to improve or expand benefits for the plan beneficiaries.

A third HMSA plan, Plan 65-C — a qualified Medicare Supplement Plan — still has substantial membership although new enrollment is no longer being accepted. HMSA will continue to fully support this fee-for-service plan.

65-C PLUS. *Type:* Fee-for-service. Members receive combined Medicare and HMSA benefits from either HMSA 65-C Plus Participating Physicians or other non-participating providers. Participating Physician status under this plan is open to all HMSA Participating Physicians. In addition, this plan provides an incentive for HMSA members to use the services of 65-C Plus Participating Physicians with minimal out-of-pocket expenses.

Benefits: HMSA pays the full Medicare benefits and all Medicare deductibles and co-payments when 65-C Plus Participating Physicians are used. Coverage extends worldwide and also includes private-duty nursing and after-hospital prescription drugs.

65-C Plus was the first "fee-for-service" type contract to be approved by the federal government under its new program.

Medicare Plus *Type:* HMO. Members receive medical care from the medical staff of independently owned and operated "health centers" throughout the state. Group practice clinics as well as other physician associations may become health centers for Medicare Plus. At present, all Health Plan Hawaii health centers qualify as Medicare Plus providers.

Benefits: Full Medicare benefits plus coverage of all Medicare deductibles and co-payments. Members pay only a small charge for physician office visits. Also covers routine physical exams, health information program, bimonthly newsletter, and out-of-state urgent and emergency care.

Q: Please explain how a physician's new employee can make an appointment with HMSA staff to review HMSA policy,

particularly regarding completion of forms and filing of claims, etc.

A: HMSA has a staff of Professional Relations Representatives who regularly assist physicians and their employees on all aspects of HMSA health plans and claims procedures. Please call 944-2300, Monday through Friday from 7:30 a.m. to 4 p.m. if you have a question or wish to schedule an appointment.

Book Review

Current Medical Diagnosis and Treatment, Krupp, Chatton, Werdegar, 1,157 pages. Lange, Los Altos, Calif., 1985.

Current Medical Diagnosis and Treatment is a collection of 34 chapters by several authors. Besides covering the traditional general medicine subjects, obstetrics, gynecology, and medical genetics are also included. Chapters on Diabetes Mellitus and psychiatric disorders are very well-presented. However, there is no consistency to the format of each chapter. Some chapters begin with symptoms and signs, others do not. Shock syndrome does not belong in general symptoms. Description of abdominal pain and loss of appetite has been omitted from gastrointestinal symptoms.

Typical presentation of a disease consists of essentials of diagnosis, general considerations, clinical findings, differential diagnosis, treatment, and prognosis. The essentials of diagnosis portions are many times, not well-thought out. In addition, "salient features" would be a more appropriate label than "essentials of diagnosis."

I would like to have seen representative EKGs in the chapter on cardiology and line drawings of esophageal abnormalities such as achalasia, spasm, and Schatzki's ring. A chapter on indications and limitations of major diagnostic procedures like a CAT scan would have been welcome.

The book is more an outline for students than a reference book for health practitioners as intended by the editors. It needs major changes to become a good reference book.

Hari B. Mankani, MD
Assistant Clinical Professor of Medicine,
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Staff Physician,
Veterans Administration Outpatient Clinic,
Honolulu.

HMA Auxiliary

During the month of June, the auxiliary was represented by Ella Edwards, state president, and Susan Irvine, who was nominated president-elect at the annual session of the AMA Auxiliary. Our alternate delegate, Carol NcNamee, and Lila Johnson were also present as members of the National Committee of AMA-ERF.

The annual session began June 15 and ended June 18. The opening session took place Sunday evening with the keynote speaker being Maureen Reagan, a challenging speaker who related her experiences in Nairobi as leader and member of the American team who met in Nairobi at the International Commission of Women. This was followed by a reception honoring our out-going and incoming presidents.

On Monday afternoon the states were represented on the podium and were allowed a two-minute report. Hawaii, however, was given an extra minute because of our annual lei-giving ceremony which is always well-received.

Several resolutions were adopted during the course of the meeting which called for the encouragement of the auxiliary and medical associations to take a more active role in the education of the public about the dangers of tobacco (smokeless tobacco in particular), alcohol, and drug abuse.

Other resolutions which were adopted include the establishment of programs to reduce severe injuries which could be the result of shaking a child, increasing programs to reduce the risk of osteoporosis, and establishment of coalitions with Healthy Mothers — Healthy Babies.

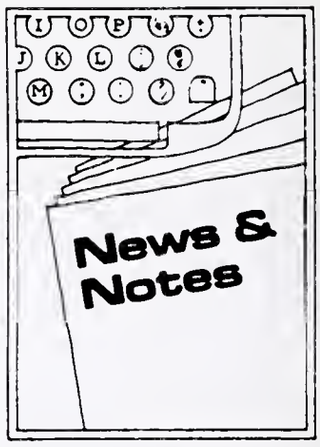
The auxiliary delegation was honored to be guests of the association delegation's dinner. To say a great time was had by all would be a vast understatement.

The last day of the convention was filled with installation speeches and recognition awards.

After a glorious final reception given in honor of the incoming president of the AMA, our delegation went to our hotel for much-needed relaxation and preparation for the return home.

Again, the auxiliary wishes to express its appreciation for the continued and constant support of the HMA.

Ella L. Edwards
President



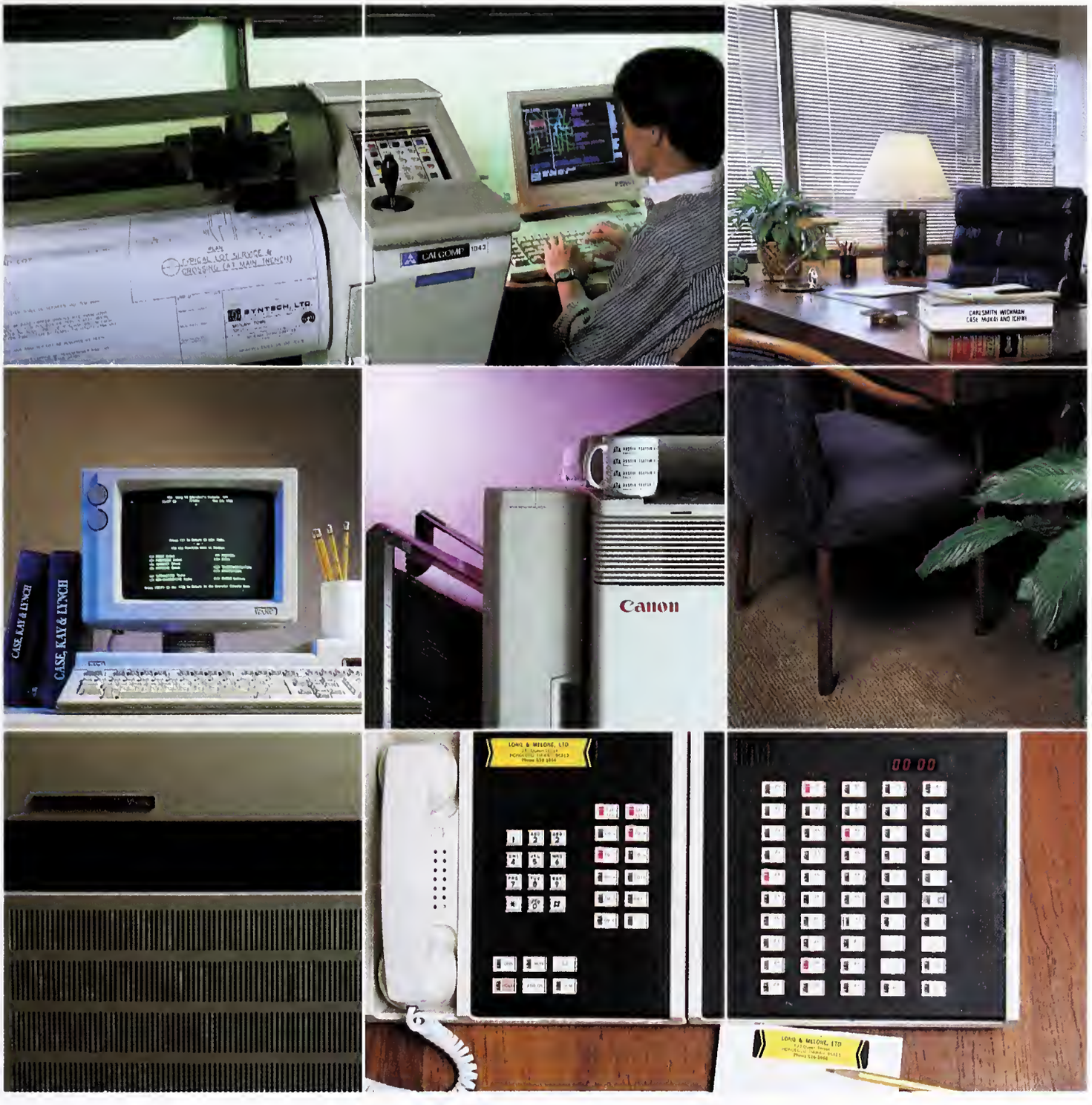
HENRY YOKOYAMA, MD

Life In These Parts

A public opinion poll conducted by the AMA in every state showed that Hawaii residents have a higher opinion of their doctors, but felt that Hawaii doctors charge too much, do not spend enough time with patients, and are too quick to prescribe drugs. However, poll results also indicated residents felt that doctors do *not* keep patients waiting too long, are informed about medical advances, and are better at explaining things than their Mainland cohorts. Russell Stodd, HMA president feels that we fared about the same or better than our Mainland counterparts not because we are any better, but because "people here have expectations that are somewhat different than on the Mainland. People here have greater trust and confidence in their physicians."

In June, HMA President Russ Stodd led an effective statewide demonstration for insurance reform; from the State Capitol grounds to the various hospitals on the outer Islands including Maui Memorial, Kula and Lanai community hospitals, Kona and Hilo hospitals, etc. Russ pointed out that high insurance rates are forcing physicians to stop delivering babies, to stop doing high-risk surgery and to retire early. In the past, malpractice insurance costs ran about 6 percent of the physician's gross, but the high insurance rates later were running more than 10 percent and as high as 18 percent of gross for obstetricians. Then, in August, we had still more insurance rate increases of about 42 percent to 77 percent.

Pat Saiki, former state legislator and now Republican congressional candidate asked: "Must we wait until no one delivers our babies? Must we wait until vital care and services will be denied?" The initiative vote in California that



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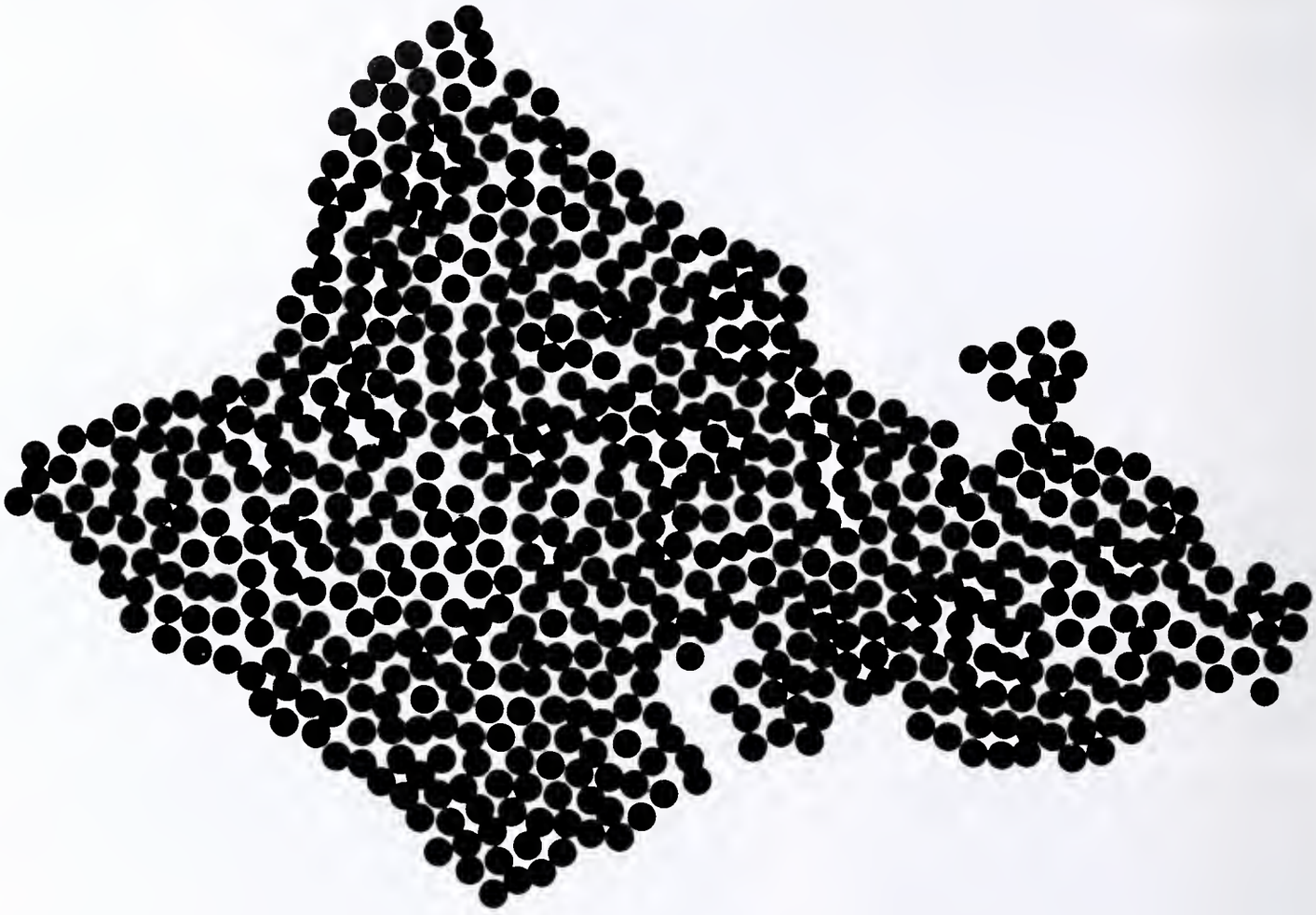

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Beyond the call

abolished "deep pocket" awards for pain and suffering shows that public opinion is ready for action on the personal injury insurance problem.

Hilo pediatrician Ruth Matsuura spoke of her personal experience with the unfairness of the current tort law. Even though the jury found her share of negligence to be minimal, she ultimately wound up paying nearly all of the judgment in the death of a Waimea baby beaten by a babysitter.

Since June, the state hospital system became "self-insured." The state had two options: Pay a $2.4 million premium for coverage, or insure itself.

The tort reform bills include the following 10 points:

1—The threshold for liability will be 50 percent; those liable for less than 50 percent would be held responsible for only their share.

2—Allow an open limit for loss of earnings, but put caps of $250,000 on noneconomic damages for most injuries and $350,000 for serious injuries.

3—The statute of limitations of 24 years would be reduced: suits are to be filed within six years after the occurence or by the minor's 10th birthday.

4—A sliding scale for contingency fees. Plaintiffs now receive 35 percent of the monetary awards while the remainder goes to legal fees. The new scale would give the lawyers 40 percent of the first $50,000, 33 percent of the next $50,000, 25 percent of the next 100,000 and 20 percent of any amount greater than $200,000.

5—The law now holds the hospital liable for punitive damages against a negligent doctor. The reform would hold the offending party responsible.

6—The reform calls for protection against frivolous suits. The court could hold the plaintiff and his or her attorney responsible for the defendant's attorney's fees.

7—The reform would prevent the plaintiff from getting paid by the insurance company as well as getting the court-ordered settlement.

8—The reform introduces the concept of compensation for iatrogenic reactions, which means that the physician is not responsible for an uncommon reaction to a procedure.

9—The reform would prohibit naming a specific amount in a suit. The plaintiff must sue for a specific cause, not a specific dollar amount.

10—The reform would allow either party to ask for periodic payments of judgments in excess of $100,000.

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Gary Okamoto, medical director at Rehab Hospital of the Pacific feels that people who were severely ill with polio in the past, were 10 years old or older at the time, and needed hospitalization and the respiratory. They now may experience new weakness and respiratory difficulty many years later.

"Not too long ago," said Okamoto "doctors didn't really think these post-polio symptoms were real. But now the reality of post-polio muscle atrophy has been accepted and some research is being done to seek out its cause."

A 6-year-old Kauai lad was swimming 15 feet from shore on Kauai's Anini Beach when a stick fish stabbed him in his left eye. He was "medivacked" to Honolulu, where Straub ophthalmologist Leonard Kuninobu operated and managed to save some sight. Leonard recalls doing surgery on a 2-year-old also from Kauai several years ago who later died from his stick-fish injury.

Memorial Day services included one at the St. Andrews Cathedral commemorating the 40 victims of AIDS who have died so far in Hawaii. David McEwan, president of Life Foundation, warns that in subsequent years, the number of Hawaii victims may be much higher.

On June 5, Kauai District Court Judge Kei Hirano set a Hawaii precedent by allowing an 84-year-old dying man to discontinue forced NG tube feedings. The patient had a collapsed esophagus, CHF and pneumonia. The children living on the Mainland agreed with the father's decision not to be kept alive by artificial means. Attending physician Larry McKnight agreed with the man's decision and the Judge agreed that the patient was mentally competent to make the decision.

Conference Quotes

Visiting professor Steve Brozinsky, endoscopist from UC San Diego, spoke on "GI Disorders Among the Aged" at a QMC-UH Medical Conference in March. Re: Surgical approach to biliary obstruction secondary to ca: "The joys of living (and dying) with a biliary drain emanating from one's flank have been greatly exaggerated." (A.R. Moose, 1985)

Said Brozinsky, "If the good Lord had meant for us endoscopists to monkey around with the papilla of Vater, He would have placed it further down in the GI tract . . . the feasibility of an operation is not necessarily an indication for its performance."

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FirstLine of Credit. It's the most convenient way to borrow. And with our low rates, it's the best way.

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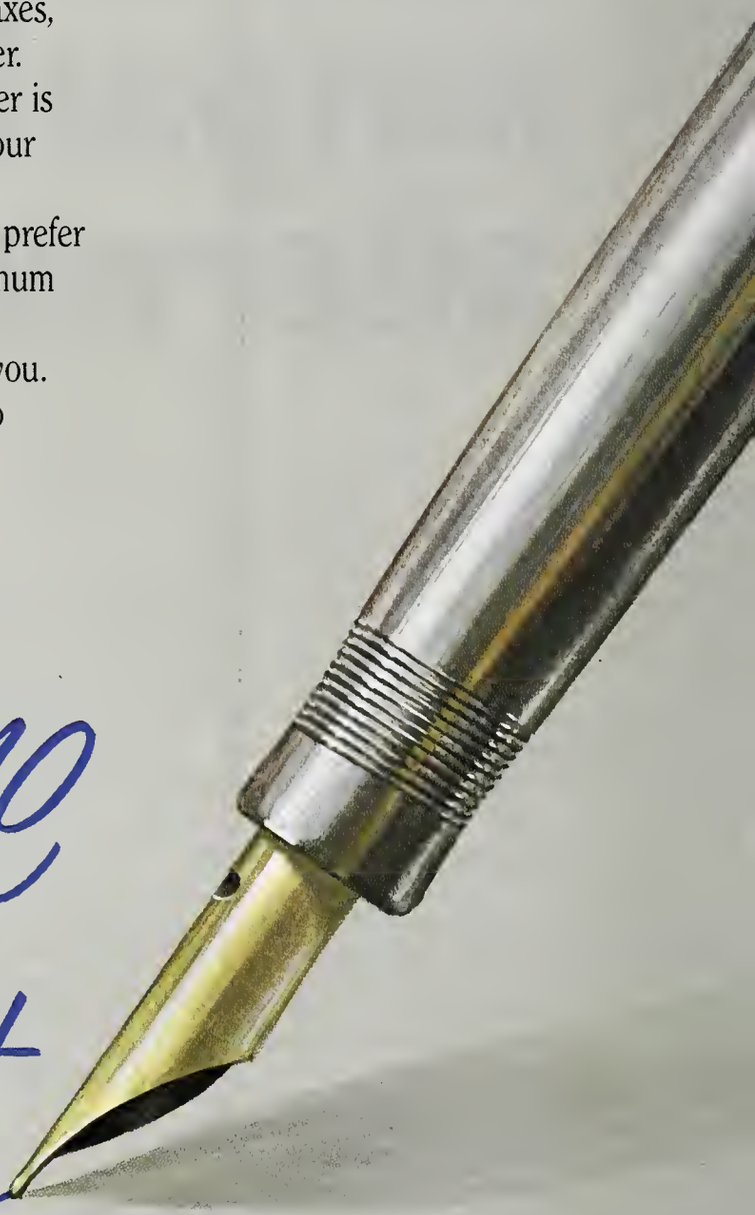

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Hawaii Medical Journal

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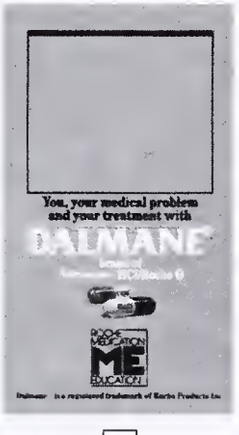

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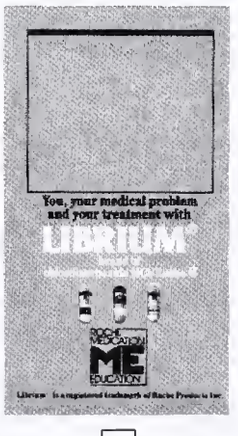

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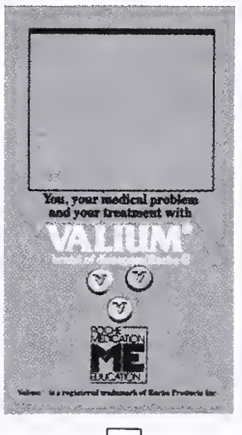

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FROM THE PRESIDENT

I would like to thank you at this time for your kokua and support in my presidential election.

This coming year will be a difficult, but exciting one. Of paramount interest will be the completion of the new HMA building on Beretania St. near Keeaumoku St. Like the Israelites, we have finally come home after wandering in the wilderness for over 125 years. However, the building is $1 million short of the projected $3.2 million cost and we will need your strong and generous support.

Tort reform has finally been initiated through the efforts of many, but mainly the business coalition. It is a start but needs to be refined, and the association will be trying to amend the insurance rollback and the nonpain and suffering portions of the act.

Competition, marketing, accessibility are the frontliner words these days. HMOs, IPAs, PPOs, unions, and other concerned physician organizations are tugging at the physician from many directions. The association will continue to closely monitor and report information that may be of concern to you.

Lastly, your association exists because of your dues. The officers as well as staff of the association will continue their efforts to see that your dues are not frivolously spent but will be "a dollar well spent."

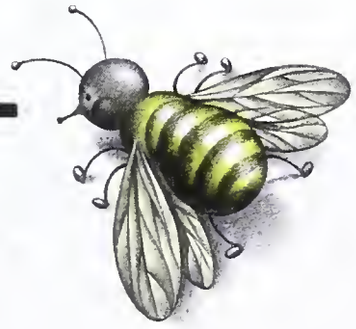
Walter W.Y. Chang, MD
President

Newly elected President Walter W.Y. Chang, MD, was inaugurated at a special ceremony Friday, Oct. 10, at the Hawaii Medical Association's 130th Annual Meeting.

Dr. Chang is in private practice in Honolulu and specializes in internal medicine and allergy. He has been active with the Hawaii Medical Association since 1962 and has served in a number of elected positions. He is past president of the Honolulu County Medical Society, past president of the Hawaii Allergy Society, fellow of the American Academy of Allergy and Immunology, and commander of the 154 Tactical Hospital of the Hawaii National Guard.

A graduate of Northwestern University School of Medicine, Dr. Chang completed his internship at St. Lukes Hospital in Chicago, and his residencies at VA Research Hospital and Passavant Memorial Hospital, both also in Chicago. He completed his fellowship in allergy at Northwestern University.

9¾%



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Of course, you'll probably never meet Walter.

But if your business demands top-flight equipment (and whose doesn't), you may be meeting his standards.

HAWAIIAN TEL GTE

Beyond the call

A Dedication to All Nurses

A young oncology nurse recently sent us a diary item. (She works in a university hospital on the West Coast, on a cancer floor.) What she has to describe is intensely subjective, and as such, has a lesson to give to all of us, physicians and nurses alike. It gives pause for thought, but besides that, it reveals a Florence Nightingale of sterling character. The JOURNAL is proud to dedicate it to all nurses, our selfless helpmeets:

"Journal entry Aug. 11, 1986:

"I had my first 'code blue' last night (we call it code 500 here in Hawaii/Ed). We were expecting it, but it still created some heart-pounding inside of me when it happened.

"The patient, Jose, was a moral dilemma for me. Like so many of our patients he was engulfed and ravaged by his cancer; he weighed just 78 pounds and was severely disfigured. He was unable to eat, talk, or walk. Unlike so many of the patients I've had to deal with in the past two years on this floor, Jose did not want to die. The doctors and his family had spent many hours trying to convince him to be a 'no code,' but Jose wanted to live — he wanted EVERYTHING to be done to save and prolong his life!

"I had met Jose the night before last. It was terrible and I found it difficult to go into the room, much less touch Jose and be my normal therapeutic self. The idea of resuscitating him, with his horrible wounds and smell, was so counter to everything I believe in.

"I spent the hour before I went to work last night with my head on my husband's chest, telling him how morally torn I felt; but in the end, if this man wanted to be resuscitated, I had to do it, for legal and ethical reasons.

"At 0155, Jose's wife called me into his room and asked if Jose was O.K. Being the good and therapeutic oncology nurse that I am, I explained that Jose had a terrible disease and that he was very sick, but that he was stable (this conversation all in Spanish). I had just checked on him 10 minutes before. And then the wife said: 'But he's not breathing!'

"Sure enough, old Jose had stopped breathing and had no heartbeat either. I thought to myself; 'Well, this is it!' I pulled the emergency cord on the wall and told A----, my partner, to 'call the code. . .this was it!'

"I got the crash cart and got the furniture out of the room . . . B---- and I started CPR. . . I was doing the respirations through his tracheostomy tube (the cancer had long since occluded his upper airway). Unfortunately, the inner cannula had been missing, so the Ambu bag could not be fitted onto it. The 'code blue' team arrived just then and I was relieved to be taking orders instead of giving them. We called the emergency room, the operating room, and finally the intensive care pulmonary care unit for an inner cannula. It took seven minutes to get and put one in! The atmosphere was actually a relaxed one, nevertheless, even though everyone's hands were moving at lightning speed . . .constant heart monitor, a femoral line for an i.v. running wide open . . .the pharmacist gave bicarb and atropine. . .the chief physician took over the CPR. . .so much movement! Twenty minutes into the 'code,' Jose's wife came to the door and asked us to please stop, but that was just when the heartbeat came back.

"Dr. W---- was called at home and said he would be there within 15 minutes. We kept breathing for Jose and told the wife he was alive. With my minimal Spanish, I asked her if there was family she wanted to call. 'No, no,' she said, 'but there is a Padre B---- from my church.' I took her to the nursing office to sit where it was calm and cool. She dug through her purse but could not find the phone number. So, I got out the phone book. God has worked many miracles with the phone book. I am constantly amazed at the power of God. The church's name and address were not in the book, but there was another Catholic church with a name somewhat similar but the address was quite different from what the wife gave me. It had only one number listed. Disheartened by the prospect of hearing a coded message giving the times of the masses to be held later on, I dialed anyway. The phone rang and rang. . .I was sure it was ringing in an empty church office. . .but suddenly I heard a 'hello' and I responded by explaining the circumstances of the call. 'Do you have a Father B----?' I asked. 'Yes, I am Father B----.'

"My job constantly shows me God's faithfulness.

"Well, I went back to Jose's room and relieved the critical care nurse at 'bagging' the oxygen into Jose's lungs. A---- helped clean up. So many things that come in sterile wrappers are used during a 'code.' After it's all over there seemed to be hundreds of used, dirtied 'things' and an equal number of wrappers lying about.

"The doctors, nurses, respiratory tech, and I talked as I bagged Jose at 32 breaths a minute. We talked about how legally and ethically we had no choice; Jose had wanted EVERYTHING and it was all documented in the chart. So, we must transport him down to ICU and put him on the ventilator. Did Jose really understand what *'everything'* meant?. . .that machine hissing in his ear, breath after breath, day after day! In all our hearts we felt the humane realistic thing to do would be to never put him on a respirator. It just kept being said, over and over, 'once you put them on it, it's so difficult to get them off'. . .especially in Jose's case because he will never be conscious again to change his mind. His last wish will always remain: 'DO EVERYTHING!'

"So. . .we transported Jose down to ICU, where they could continue to do everything for him. There he lies having his life supported by one-to-one nursing care, a troop of physicians, and the respirator.

"And so, my first 'code blue' was a success. I did just as the patient wanted. I took all the right steps. I made all the right decisions.

"It's just too bad how it all turned out.

"Jose died in ICU 36 hours later. He had 'coded' again, but they just couldn't get him back."

(ED: This was an R.N., class of '84, communicating.)

J.I. Frederick Reppun, MD, Editor

RE: Medical Advertising Sucks

Medical advertising sucks; not in the sense of drawing patients to the medical facility, such as a magnet exerting a force field, but in the teen-age vernacular of a drag, parasite, a hanger-on, self-putter, usurper. Our exalted profession of medicine is now constantly embarrassed by pretentious, inflated, churlish, ignoble, and often vulgar displays of egomania on television, radio, and in the newspaper.

One doctor mentioned that he cringed when he saw ads on television of his own hospital calling itself the laser center of the Pacific (why not the world). Another institution trumpets that it cares for patients after working hours and on weekends. What a surprise! Another television spot shows a series of pictures of smiling patients with doctors of various specialties, SO HIGHLY skilled and SO CARING. Yet another gambit takes us into the operating room while we watch a printout of the cost of services with NO BALANCE DUE!

Where we once had medical offices and clinics, we now have centers, foundations, and at least one "institute." One wonders just how far this ego satisfying, vainglorious, self praise will go? No doubt the Madison Avenue fops who correograph these magniloquent ovations have more hot air yet to come.

A look into recent history shows how this foolishness came to be. Historically, medical ethics prohibited advertising for some very sound reasons. The public confidence in physicians and medical facilities should be based on appropriate credentialing, licensing, and ongoing review performed by knowledgeable and experienced people. Medical societies, specialty organizations, hospitals, and health departments are constantly trying to maintain a high standard of care in the community. With that in mind, organized medicine prohibited advertising as unethical behavior, since its only goal is aggrandizing the purchaser.

In 1975, the Federal Trade Commission came down with the Goldfarb decision which specifically stated that medicine is a trade, and that any such prohibition was in restraint of free trade. The gates were opened to the entrepreneurs of Madison Avenue. They eagerly swarmed over the corpus medicinesis telling of how one must protect and increase his market share through the skillful use of advertising and various other inflating devices.

Sadly, organized medicine cannot publicly criticize any of these tasteless endeavors unless they are false or deliberately misleading. Privately, and individually, we can relate our personal disgust, shame, and perhaps even nausea, to the perpetrators, but that's about it. And one wonders how much effect that will have, considering that the hucksters are willing to see their ads sandwiched between the law firm of contingency, Shylock and Scumbag on one side, and the spine crackling Dr. Colonirrigator on the other.

The final truth is that advertising of medical care really has very little effect on the public. Repeated studies have demonstrated that patients are not foolish, and that they tend to return to doctors they know and trust. They frequently depend upon relatives and friends for medical recommendations. The real winners in the advertising game are the merchants who sell the advertising.

Like many other changes taking place in medical practice in the 1980s, there will be no turning back, and we must accept the hucksters, promoters, and medical salesmen. And like many other recent changes, neither the public nor the medical community are well served.

Russell T. Stodd, MD

RE: Fee for Peer Review Required By MIEC

I am outraged by the recent announcement of an increase from $500 to $700 for the "peer review" required by MIEC. Surely this is in excess of the cost of providing such service and appears to be a crude attempt to bludgeon physicians into membership. It is unconscionable that a collegial organization would take advantage of its members this way. The HMA is supposed to help us reduce malpractice costs, not *increase* them!

I suspect this is to pay for another white elephant building. If the dues weren't so out of line, perhaps more members would willingly join. It costs me about $1,500/year for my other organizations and all are in the $300 range.

I urge other doctors to shake off our traditional lethargy and protest this or the oligarchy which controls the HMA will persist in other areas not in the rank-and-file's best interest.

Mark Dillen Stitham, MD

Erratum

The names of the authors in the August 1986 HAWAII MEDICAL JOURNAL article titled "Incidence of Non-melanoma Skin Cancer in Kauai During 1983" were printed out of sequence. The authors' names should have been printed in the following order:

Jenny L. Stone, MD
David J. Elpern, MD
George Reizner, MD
Evan R. Farmer, MD
Joseph Scotto, MS
Rhonda Pabo, RN

Also in the August issue, several tables and figures were inadvertently deleted from "Natural Killer Cell Function in Cancer Patients Treated with Natural Leukocyte Interferon-alpha." This article has been reprinted in this issue of the Journal.

Response From HealthCare

Neal E. Winn, MD

Several months ago, Dr. Frank A. Rogers of California offered his opinion of Preferred Provider Organizations (PPOs to readers of the Hawaii Medical Journal).[1] It seems important to present another point of view.

In the best of all worlds, many physicians, including myself, would prefer an indemnification reimbursement system in which we physicians would deal directly with our patients. Those patients would pay our reasonable fees for the services we provide, then seek reimbursement from the carrier of their choice. In reality that system is apparently acceptable to decreasing numbers of patients.

Any of you who, as patients, have experienced a serious medical problem are aware of the complexity of the insurance forms to be completed and the bills that must be deciphered. The often unsophisticated, and particularly the elderly, patient is unwilling or unable to cope with this problem. More and more MDs accept the responsibility of functioning as the patient's advocate in this area.

While Rogers and the Independent Doctors of America (IDA) object to the concept of a middleman between the physician and the patient, businesses and government expect this and now insist on agressive utilization and peer review programs as an essential part of any medical program eligible for consideration by their employees. Third-party payers are dissatisfied with current efforts to control the providers, small in number, but who are gouging the current system.

At the Leadership Conference hosted by the AMA in February 1986, data was presented indicating that fee-for-service accounted for 96 percent of the reimbursement in 1980 and 72 percent in 1985; they estimated it will account for only 5 percent in 1990.[2] Even if they are only partially correct, not many of us can afford to abandon access to 75 percent or even 50 percent of the patients seeking medical care.

Our alternatives are therefore to observe passively while big business, for-profit chains, or hospitals determine the types of alternative health delivery systems we will work for; or to participate actively in the development and management of those systems. We MDs in HealthCare have opted for an active, aggressive role in shaping our medical futures.

We believe in offering our patients a wide selection of respected physicians distributed throughout the islands; physicians committed to a program of self-discipline that is developed and administered by our peers, and using those facilities willing to cooperate with us in providing cost-effective care of the highest quality. It will never be in our best interests to sacrifice that quality, simply to spare cost; to do so would be to shift the payee's reasonable cost for health care coverage over to our own expense account, in the form of increased medical liability premiums.

We believe that the vast majority of MDs want to adhere to the highest possible standards of care. However, our knowledge is increasing so quickly and technology is evolving so rapidly that it has been difficult for us to know what that standard of care really is. Given the proper feedback on the medical care being offered by most of our peers, most physicians will respond appropriately. The few doctors unable or unwilling to conform to such standards should and must be identified and educated, and, if necessary, sanctioned or excluded from our programs if we are to avoid the imposition of unpalatable and unwarranted regulation by government or big business (or business coalitions).

Rogers' statements about the pitfalls and dangers associated with PPOs contain inaccuracies and errors that demand clarification and correction. Obviously there are a variety of forms of Health Maintenance Organizations (HMOs) and PPOs, depending significantly upon the nature and philosophy of their organizers. I am neither capable of nor interested in replying on behalf of those delivery systems that are developed and run by hospitals, insurance carriers, or business coalitions. But I think it is important to state the nature of HealthCare Providers Organization Inc., the PPO initiated by your fellow physicians in HealthCare Management Group Inc. here in Hawaii.

First and foremost, contrary to Rogers' assertion, a PPO is not a closed panel group practice. HMOs are closed-panel organizations. By its very definition, a PPO is an open-panel organization that encourages patients to seek care from participating providers, but which permits them also to seek care from other providers of their choice. Inducements such as additional coverage or lessor co-payments are offered to the patients to encourage them to utilize the participating physicians, however.

Rogers lists 17 pitfalls and problems to be considered with regards to PPOs. I would like to adddress each of those points with specific reference to HealthCare Provider Organization Inc.

● **The physician in the PPO must treat each and every patient assigned to him and continue to do so even after he resigns.**

HealthCare's contract specifically states that a physician has the right to

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determine in every case whether to provide care for any specific subscriber. Any participating physician may resign after giving a 30-day notice.

● **Physicians in PPOs must refer only to fellow PPO contractors and to contracted hospitals.**

This is not true. Participating physicians will be encouraged to refer to participating consultants, but have the right to refer to nonparticipating consultants whenever they are dissatisfied with the selection or capabilities of participating providers. Physicians may also admit patients to hospitals of their own choice but will be encouraged to admit to those facilities that are most cost-effective.

● **Physicians' liability coverage may not extend to care provided in fixed-fee contract medical schemes.**

HealthCare's plan has been approved by Hawaii Association of Physicians for Indemnification (HAPI) and by the Medical Insurance Exchange of California (MIEC).

● **"Hold Harmless" clauses in PPO contracts shift contractual liability to the physician from the PPO.**

It is true that a hold harmless clause could do that, but HealthCare's contract does not contain any hold harmless clauses. Rogers also asserts that the physician is bound by decisions of the Utilization Review Committees hired by the PPO. In HealthCare our own participating providers will serve on these Utilization Review Panels.

It is our expressed philosphy that the physician is ultimately responsible for care and must make the final decision on what is best for his patient. Our staff and our physician review members are being instructed to encourage physicians to follow our utilization review criteria and to educated physicians on what we feel is cost-efficient medicine.

However, they are further instructed that they are never to override the decision of the attending physician. It will never be in the best interest of HealthCare and its participating providers to under-utilize to reduce health care premium, at the risk of increasing our own liability premiums.

We would rather absorb the cost of one case in which we disagree with the attending physician rather than to alienate him or to risk a lawsuit should the patient experience harm from under-utilization.

If a physician repeatedly disagrees with and overrides our utilization review committees, we reserve the right to request his resignation as a participating provider.

● **Contracts do not guarantee rapid payment fees.**

Transamerica, our insurance carrier, has indicated its intention to pay over 85 percent of claims within seven days. A small percentage of claims take longer because of such problems as multiple insurance coverage. Since elective hospitalizations will have been precertified, payment for that care is assured when eligibility has been verified. Furthermore, Transamerica does not include any interest earned delaying claim payment in the actuarial calculation of premiums.

● **A physician may not be able to resign from a PPO for one year.**

HealthCare's contract permits a physician to resign after a 30-day notice. It is the expressed intention of our board to permit a dissatisfied physician to resign rather than to alienate him, or to have in our organization a participating physician who refuses to cooperate with our utilization review programs.

● **Arbitration of disagreements may be mandated by contract and can be costly.**

HealthCare and Transamerica will have a grievance committee to deal with disputes concerning reimbursement but have no expectation of submitting our physicians to expensive arbitration programs.

● **In PPOs and contract medicine, the fees or payments are fixed.**

Physicians will submit to Transamerica their usual charges. The reimbursement levels have been provided to the physicians in their contracts and will be negotiated annually. The 85 percent to 90 percent of physicians who currently participate with HMSA have likewise agreed to accept a fixed reimbursement; Transamerica's agreed-upon-reimbursement is at least as good as and in most cases better than, what HMSA is currently offering.

● **There is a clear and present risk of suit by federal government, outside doctors, and disgruntled patients.**

This is true only if we participate in antitrust activities; HealthCare is receiving and will continue to receive expert legal advice to avoid any such activity.

● **The physician submits himself to significant risk with prepayment or capitation plans.**

The risk in HMOs is clearly significant. In HealthCare's current agreement with Transamerica, physicians are at risk for only 10 percent of their reimbursement; and, in exchange for that, get to share with Transamerica in any of the profits. The 10 percent of our fees that are withheld will be placed in an escrow account (Utilization Management Fund) that will be distributed on a quarterly basis to participating physicians according to an established formula agreed upon by our HealthCare's Board of Managers.

● **Rogers asserts that every PPO withholds fees.**

That is true; but it is not a discount. We have agreed to a withhold of 10 percent, with the assurance that the participating providers, not HealthCare, will share in savings realized because of our utilization review programs. The first generation of PPOs demanded a straight discount in return for promises of larger volumes of patients. Those promises were usually unfulfilled.

HealthCare's venture agreement with Transamerica constitutes the first of a new generation of PPOs in which the providers agree to share a limited risk, with the opportunity to share in the profits as well.

● **PPO contracts include the ingredients of mandatory precertification and concurrent review.**

That is absolutely true and we do not apologize for that. Utilization Review is demanded by the purchasers of health care. In the current health care climate it is something we are accepting in our participation with HMSA, and to which we must agree if we hope to be eligible for particiaption in contracts with major unions and large businesses. But most importantly, in HealthCare, decisions about preadmission criteria and utilization review criteria will be made by the participating physicians, not some outside organization.

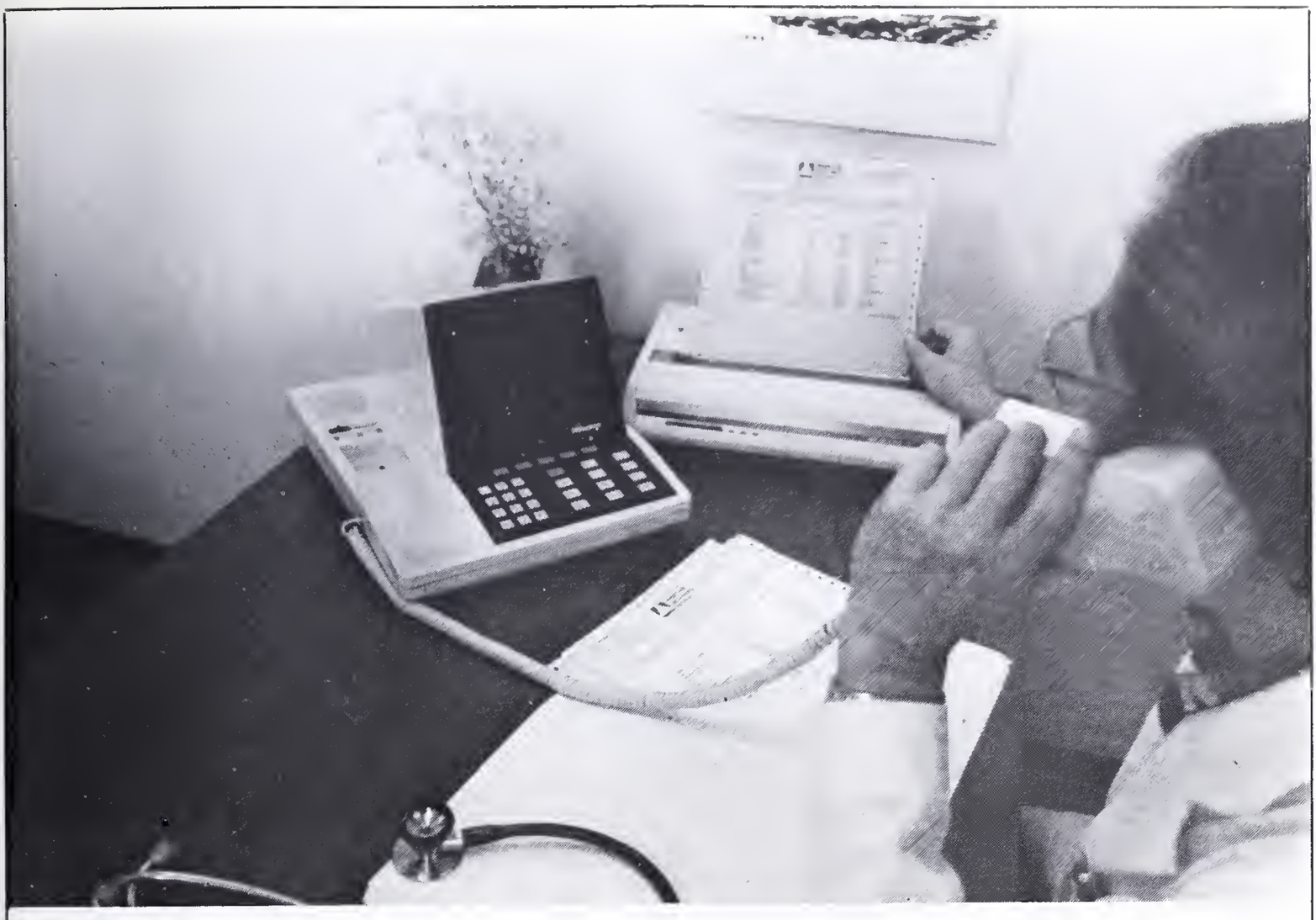
● **Brokers or middlemen who control the system make the money.**

HealthCare's management group will receive a reasonable administrative fee from Transamerica for the credentialing and utilization review services we will provide to our participating physician.

However, none of the savings generated by our utilization review plans in the HealthCare Provider Group accrue to the management organization. Those savings will be distributed to the providers, regardless of whether they are stockholders.

● **PPOs and contract medicine are unneeded.**

Recent data presented at the American Medical Association Leadership Conference in February 1986 indicated that fee-for-service medicine now representing approximately 75 percent of the health care delivered in the United States may decrease to as low as 5 percent of the



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health care by 1990.

It was further estimated that patients enrolled in HMOs and PPOs may constitute as much as 70 percent of the population within the next five years. We are fully aware of the impact of Kaiser on our community and are already seeing the development of PPO- and HMO-type plans by Straub, HMSA, and some of the hospitals in our community. It is essential that the independent physicians of Hawaii have an opportunity to complete effectively in the marketplace with these other plans to retain our current patient base.

● **Only physicians can practice medicine and without their acquiescence no PPOs could be formed.**

While that is true, the increasing number of physicians available in Hawaii and throughout the country have produced a situation in which we now are confronted with a buyer's rather than a seller's market in medical care.

Many of the physicians in the United States have already agreed to participate in PPOs and HMOs as a matter of survival, and that number is increasing steadily.

● **There is no guarantee that a physician contracting with PPOs and HMOs will receive more patients.**

That is quite true. It is equally true that physicians who refuse to contract may clearly see less patients because increasing numbers of patients will be committed to the HMOs and PPOs requiring or encouraging them to use participating providers.

● **There is a virtual guarantee that discrimination will occur through these fixed-fee services systems.**

It is HealthCare's philosophy that a system owned and managed by physicians is the only viable alternative to minimize this possibility.

Many of us are still most comfortable with a fee-for-service system and would, in fact, prefer an indemnity form of reimbursement. But, like it or not, businesses, unions, and many patients are indicating a dissatisfaction with that current system. Many of our patients are unwilling or unable to cope with the complicated insurance forms that must be completed and are unable to make intelligent decisions concerning the quality and appropriateness of care. Many of our fellow physicians have agreed that it is an appropriate role for us to serve as those patients' advocates. New and evolving alternate delivery systems such as HMOs and PPOs provide that advocacy.

It is HealthCare's goal to preserve the quality of the care that we are providing our patients while at the same time positioning ourselves to maintain or increase our patient loads. We feel that it is essential that we physicians maintain a leadership role in the evolution and management of the emerging alternate health delivery systems. We hope that all of Hawaii's physicians will consider joining us in the preservation of the independent practice of medicine.

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2. Rosenfield, Robert H: Joint Ventures, presented at American Medical Association, 1986 National Leadership Conference: Feb. 20-22, 1986.

The 130th Annual Meeting at The Westin Ilikai Hotel in Honolulu drew more than 400 physicians and allied health.

130th Annual Meeting

Oct. 10 through 12, the Hawaii Medical Association hosted its 130th Annual Scientific Meeting at the Ilikai Hotel in Honolulu.

Included in the three-day event were several educational sessions featuring nationally recognized experts on stress and heart disease, a meeting of the association's main governing body, the House of Delegates, and the election and installation of officers for 1986-87.

Two out of five resolutions before the House were passed.

One commends the work of Betty Katsuki in researching and producing a set of volumes containing biographical sketches and photographs of doctors who have practiced in Hawaii and are now deceased.

The other resolution established a special committee on alcoholism and other chemical addictions. The committee will be charged with developing a program placing the Hawaii Medical Association "in the forefront of the state and national effort to combat the manifold problems of alcoholism and other chemical addictons."

The House also discussed and voted on resolutions dealing with tort reform initiative, premarital health certificate, and the appropriation of Medical Insurance Exchange of California's reserve funds.

Several committee recommendations were also reviewed and approved by the delegates, including continuing HMA's legislative push for meaningful tort reform, intiating and expanding HMA's AIDS educational campaign for physicians and health professionals, and developing the association's 501(c)(3) as a fundraising vehicle for public health education, research, and medical scholarships.

Tuxedos, formal evening gowns, spotlights, and a ceremonial extravanganza highlighted the Presidential Inauguration Ceremony on Oct. 10.

Speaker of the House Milton Howell, MD, swears in 1986-87 President Walter W.Y. Chang, MD, during Friday evening's inauguration ceremony.

Putting on the Ritz — HCMS President Philip McNamee, MD, and wife Carol.

President Stodd presents KGMB news reporter Leslie Wilcox with HMA's "Distinguished Medical Reporting Award" for television. Cameraman Michael May joined Leslie in receiving the award for "When the Bough Breaks, Children in Crisis."

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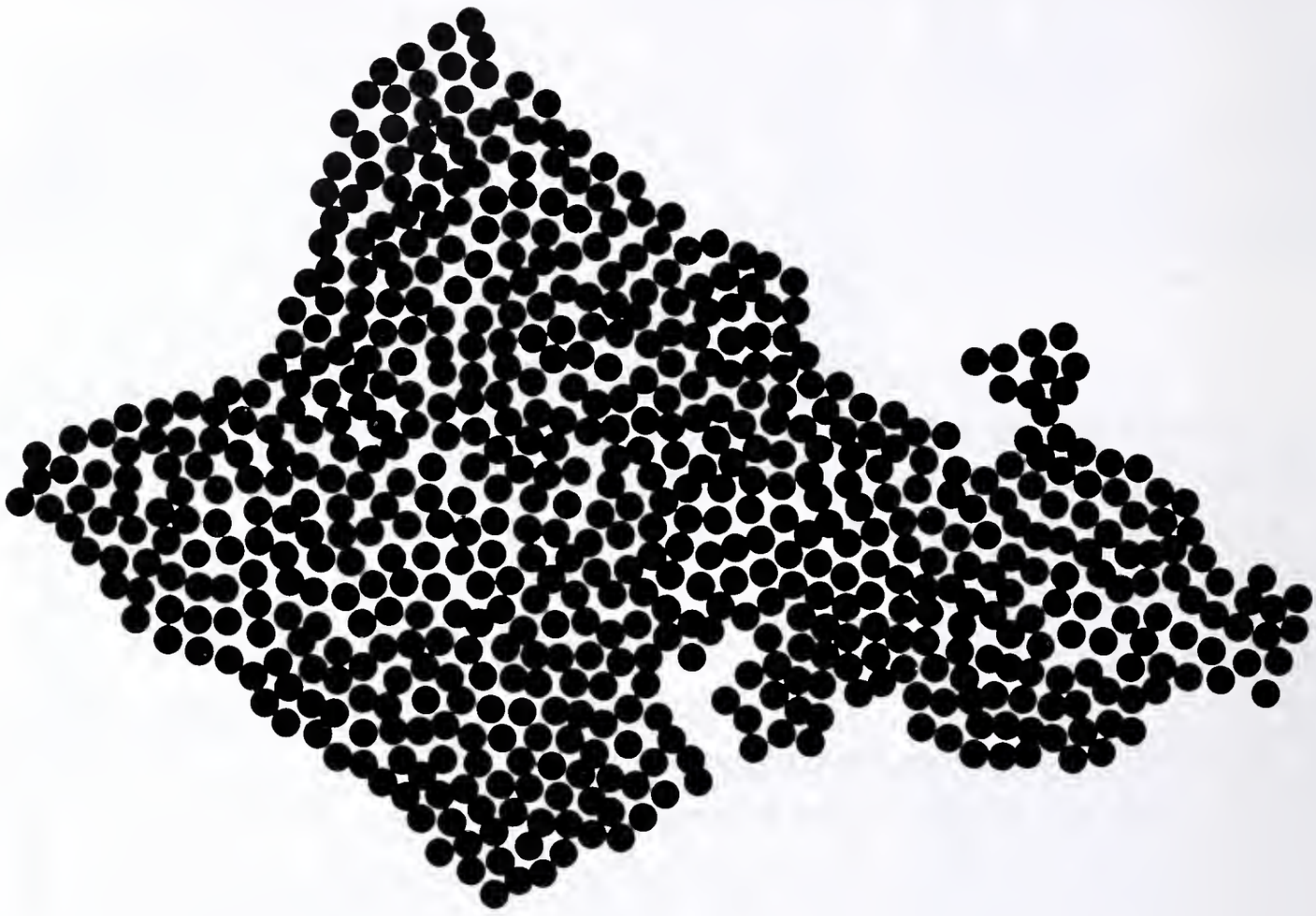

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Beyond the call

Influenza A: Prospects for Prevention and Control III: Influenza Prevention Today

(The third of three parts)

David M. Morens, MD*

Influenza is the most important infectious disease in the United States today, killing thousands of persons each year and causing significant morbidity, economic loss, and loss of productivity.

Control of influenza depends upon coordinated efforts on the part of physicians, patients, and health officials to: (1) support sensitive influenza surveillance systems and to act upon surveillance data in timely fashion, (2) formulate and regularly evaluate and revise preventive strategy guidelines that target and prioritize identifiable groups of persons at risk of complications of influenza, at risk of transmitting influenza, and engaged in essential community services, and (3) develop updated inactivated vaccines and administer them to all targeted groups, and to all other individuals who wish to decrease their chance of acquiring influenza.

Although the number of persons at risk of serious complications from influenza can be expected to rise dramatically in the coming years, a brighter outlook for influenza control in the future is suggested by the accelerating development of efficacious live vaccines, by more aggressive and optimistic public health policies, and by the probability that once better vaccines are developed and widely used epidemics of influenza caused by prevalent strains can be blunted by vaccine-induced herd immunity.

(Parts I and II were discussed in the previous issue of the JOURNAL, published October 1986.)

Until newer vaccines become available, what can physicians, patients, and health officials do to prevent influenza A?

First and foremost, prevention of influenza must be based upon reporting of suspected cases by physicians. In Hawaii, influenza is a notifiable disease, and the Department of Health has an excellent community and laboratory surveillance system that can detect budding epidemics in time to alert the community at large. Physicians who fail to notify the Department of Health about suspected cases of influenza inadvertently contribute to delays in epidemic recognition that invite further spread of influenza.

Secondly, prevention of influenza is based upon comprehensive, constantly updated recommendations by health officials, particularly those in the Hawaii Department of Health and at the CDC. These recommendations are printed in the health department's monthly Communicable Disease Report, e.g., most recently that of July 1986, the CDC's Morbidity and Mortality Weekly Report (MMWR) and in other publications. (In general, the recommendations of the Health Department and of CDC are identical, but the state's recommendations, which are based upon those of CDC, the ACIP and other official bodies, may be more specific, or may contain information relevant only to Hawaii. Therefore, the state recommendations should take precedence over the others).

Thirdly, influenza prevention is based on the concept of "targeting" groups of individuals at risk of serious complications for preventive measures described below. While this strategy alone may not reduce overall community transmission, it can reduce morbidity and mortality.

High-risk groups include:

- Persons of any age with chronic

Associate Professor, Department of Tropical Medicine and Medical Microbiology, University of Hawaii School of Medicine, Honolulu, Hawaii.

pulmonary or cardiac conditions severe enough to require regular check-ups or hospitalization.
- Residents of nursing homes and similar facilities[1].
- All persons over age 65.
- Persons of any age with chronic "metabolic" diseases such as diabetes mellitus, natural or iatrogenic immunosuppression, renal diseases, collagen vascular disease, anemia, and asthma severe enough to warrant regular check-ups or hospitalization.

The first two of these groups are accorded the highest priority for vaccination and, if unvaccinated, for amantidine prophylaxis and other measures described below, during outbreaks.

Fourthly, influenza prevention is based upon targeting populations *at risk of increased influenza transmission,* and *at risk of increased transmission to persons at risk for complications.* As noted above, this is a newly adopted strategy aimed specifically at health care personnel and residents of institutions such as nursing homes. It is analogous to the American vaccination policy for rubella: Targeting for vaccination the individuals (young children) at low risk of complications, but at high risk of transmitting to other persons (pregnant women) who *are* at high risk of complications (miscarriages or delivery of infants with fatal or disabling congenital rubella syndrome). Such influenza-transmitting individuals are considered a high-priority group for vaccination[1], along with the two high-priority groups already mentioned.

Fifth, the mainstay of prevention is vaccination with current inactivated influenza vaccine, which may contain antigens from one or more influenza A viruses, and from an influenza B virus. Private physicians should identify and vaccinate their patients. Hospital and institutional infection control officials should institute vaccination procedures. (During epidemics, such officials should also consider cohorting and isolation measures and, in extreme situations, limiting elective admissions).

Physicians should offer vaccination to all patients who wish to decrease their risk of influenza acquisition, especially to persons who provide essential community services, e.g., to policemen and firemen. Although schoolteachers are not specified in current recommendations, they are at risk of increasing community transmission, and may also be considered high-risk transmitters.

Although influenza vaccines are not known to be harmful, it is not recommended that they be given to pregnant women, on theoretical grounds. Persons with the following histories ***should not be vaccinated:***
- Those with anaphylactic egg sensitivity.
- Those with previous severe reaction to influenza vaccination.

Vaccination is normally deferred in persons with acute febrile illnesses who can return at a later date.

Sixth, amantadine hydrochloride may prevent influenza A disease when given prophylactically, and may reduce severity of symptoms and duration and degree of virus shedding (transmissibility) when given within 24 to 48 hours of influenza A onset. Although amantadine should not be used in place of vaccination, the following unusual circumstances constitute specific exception when amantadine prophylaxis should be given:
- Short-term prophylaxis during an epidemic, to unprotected persons at high risk of complications.
- As an *adjunct* to late vaccination of persons at risk of complications, and of health care personnel, during an epidemic.
- To supplement the protective effect of vaccination in immunologically compromised persons.
- To prevent influenza in persons in high-risk groups for whom vaccination is contraindicated.

In addition, amantadine should be considered for treatment of persons at risk of complications, regardless of vaccination status, who present during an influenza epidemic with influenza-compatible disease of less than 48 hours duration.

Amantadine is contraindicated for infants and for persons with known drug sensitivity. The dosage should be reduced in persons with decreased renal function, and in persons with convulsive disorders.

With respect to nosocomial influenza transmission, recent guidelines recognize difficulties in implementing isolation of adult patients with suspected illness: Virus excretion begins before symptoms appear; diagnosis on the basis of signs and symptoms may be delayed or missed, particularly in non-epidemic periods; and laboratory diagnosis is rarely made while the patient is able to transmit virus to others. Although each situation should be individualized, a reasonable approach to prevention of nosocomial transmission is that advocated by the Hospital Infections Program of the CDC[2].

These guidelines place importance upon both the age of the patient and the presence or absence of a community epidemic. During non-epidemic periods isolation is not recommended for adult patients with unproven influenza. However, isolation is recommended for infants and young children with suspected influenza during non-epidemic periods, apparently because of a greater likelihood of influenza infection spread to others, and, in many hospitals, the presence of other susceptible children in the same ward area.

Respiratory isolation for influenza includes assignment of the child to a private room and, if soiling of clothes is likely, the wearing of gowns by hospital personnel for the duration of illness. Neither gloves nor masks are recommended for hospital personnel.

CDC recommendations for preventing nosocomial influenza transmission by both children and adults during known epidemics offer a practical option to isolation: Patients with proven or suspected cases may be "cohorted" or placed in the same rooms and general ward areas, ideally with the same staff assigned to their care.

As noted, an important goal of prevention is to reduce the risk of infection of health care providers, who should receive yearly influenza vaccinations. In addition, recent recommendations of CDC[3] suggest that with the use of updated ACIP recommendations[4] hospitals should adopt their own employee health policies for influenza prevention. Ideally, these policies would first stress identifying the likelihood of epidemic influenza before it actually occurs. Suggested strategies would then include identifying, prioritizing, and vaccinating personnel at high risk of transmission, as well as those whose services are critical, at least several weeks before the beginning of the influenza "season." During epidemics, prophylactic amantadine can be used to limit spread from unimmunized personnel.

Because hospital infection control personnel are usually the only individuals whose range of responsibilities are broad enough to oversee such policy-making and control-implementation, the leadership of both infection-control practitioners and infection-control committees in influenza prevention is essential.

ACKNOWLEDGMENTS

We acknowledge with gratitude the help of Joanne H. Akamine, Evelyn Lundquist, and Karen Amii in manuscript preparation, and of the Epidemiology Branch, Communicable Disease Division, Hawaii Department of Health.

(Continued on page 414)

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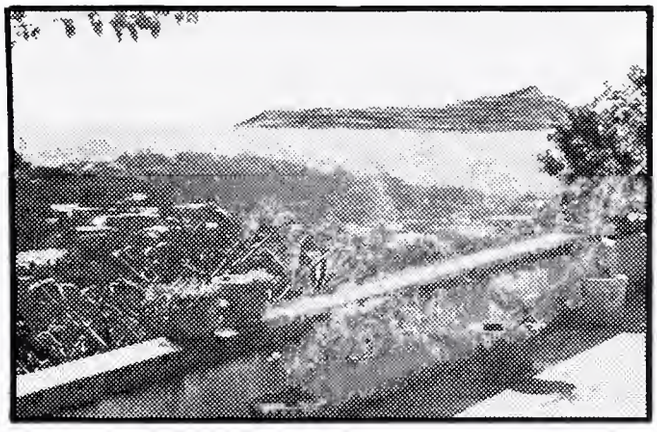

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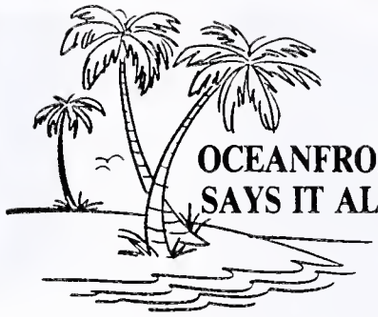

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Anti-HTLV III Testing of Blood Donors and Recipients, Hawaii Experience

Julia Frohlich, MD*

The Blood Bank of Hawaii (BBH) initiated testing for antibody to human T-lymphotropic virus type III (anti-HTLV III) in March 1985. Simultaneously, an alternate site was established by the state Department of Health for testing persons who might be at increased risk for acquired immunodeficiency syndrome (AIDS).

BBH EXPERIENCE IN TESTING VOLUNTARY BLOOD DONORS:

TABLE 1

Number of blood units screened and repeatedly reactive by ELISA and Western Blot, Blood Bank of Hawaii, March 26-Oct. 31, 1985

	Male	Female	Total Donors
Total units tested	14,605	5,818	20,423
Repeatedly reactive by ELISA	60	21	81(.40%)
Repeatedly reactive by ELISA and Western Blot	6	0	6(.03%)

Of 81 donors who tested repeatedly reactive by ELISA, 74 percent were men. (The usual BBH donor population is 71 percent men.) Of the six donors with anti-HLTV III on both ELISA and Western Blot testing, three had given blood previously. All six donors were informed of their test result in person by the BBH physician. Physicians who transfused blood from these donors to recipients on earlier occasions were informed by the BBH physician of the fact that their patients were at possible risk of exposure to HTLV-III.

*President, Blood Bank of Hawaii

Accepted for Publication, August 1986

Correspondence: Blood Bank of Hawaii
2043 Dillingham Blvd.
Honolulu, Hawaii 96819

TABLE 2

Status of 71 recipients of blood from donors now with reactive tests for anti-HTLV III, Blood Bank of Hawaii

Status	Number of Recipients
Physician contacted; patient sample submitted	21
Physician contacted; no patient sample submitted	17
Physician not contacted (transfusion prior to 1979)	5
Recipients expired*	
-no sample available	27
-expired since sample submitted	1
TOTAL:	71

* Cause of death unrelated to AIDS.

TABLE 3

Results of anti-HTLV III testing by date of transfusion, Blood Bank of Hawaii

Recipient	Before 1/01/84	Since 1/01/84	Total
Anti-HTLV III (+)	0	3	3
Anti-HTLV III (-)	15	4	19
TOTALS:	15	7	22

Recipients of blood who were transfused prior to 1984 did not develop anti-HTLV III. Three of seven recipients of blood who were transfused during 1984 and 1985 developed the antibody. Two of these antibody-positive recipients received separate blood components from the same unit of blood.

Addendum (as of July 1, 1986)

Since October 1985, five additional donors have been found positive for anti-HTLV III (by ELISA and Western Blot tests), for an overall total of 11 donors positive out of 50,000 units (collected March 1985 through June 1986) or an overall incidence of 0.02 percent. Three of these additional donors had given blood previously. Follow-up and testing of recipients reveals no additional antibody-positive results in recipients.

Case Studies

Case 1. An 83-year-old diabetic woman received two units of red blood cells in March 1984, while undergoing leg amputation. One unit was from a donor who was found to be reactive for anti-HTLV III in 1985. In addition to a reactive HTLV III test, she showed a decrease in absolute lymphocyte count and an inverted ratio of T helper-to-suppressor cells. She expired in November 1985; an autopsy revealed no evidence of AIDS.

Case 2. A 59-year-old man received five units of blood and blood components in January 1985. One unit of red blood cells was from a donor found to contain anti-HTLV III later that year. The patient has anti-HTLV III. Physician examination, routine laboratory studies as well as lymphocyte count and helper-to-suppressor ratios are all reported normal in this patient. The patient's wife also has anti-HTLV III, with lymphadenopathy, a decreased white blood count and 40 percent atypical lymphocytes.

Case 3. A 64-year-old man received 29 units of blood and blood components in February 1985. One unit of fresh frozen plasma was from the same donor whose red blood cells were transfused to Case 2, and later found to contain anti-HTLV III. The patient has anti-HTLV III; his wife is negative for anti-HTLV III. Physical examination, routine laboratory studies as well as lymphocyte count and helper-to-suppressor ratios are all reported normal in this patient.

Summary

The data shown represents 100 percent of all civilian blood collected in Hawaii between March 26 and Oct. 31, 1985; the Blood Bank of Hawaii has been the sole supplier of blood to community hospitals in the State of Hawaii since 1941. Approximately 40,000 units are collected each year from volunteer donors on the five major islands: Hawaii, Oahu, Maui, Kauai, and Molokai.

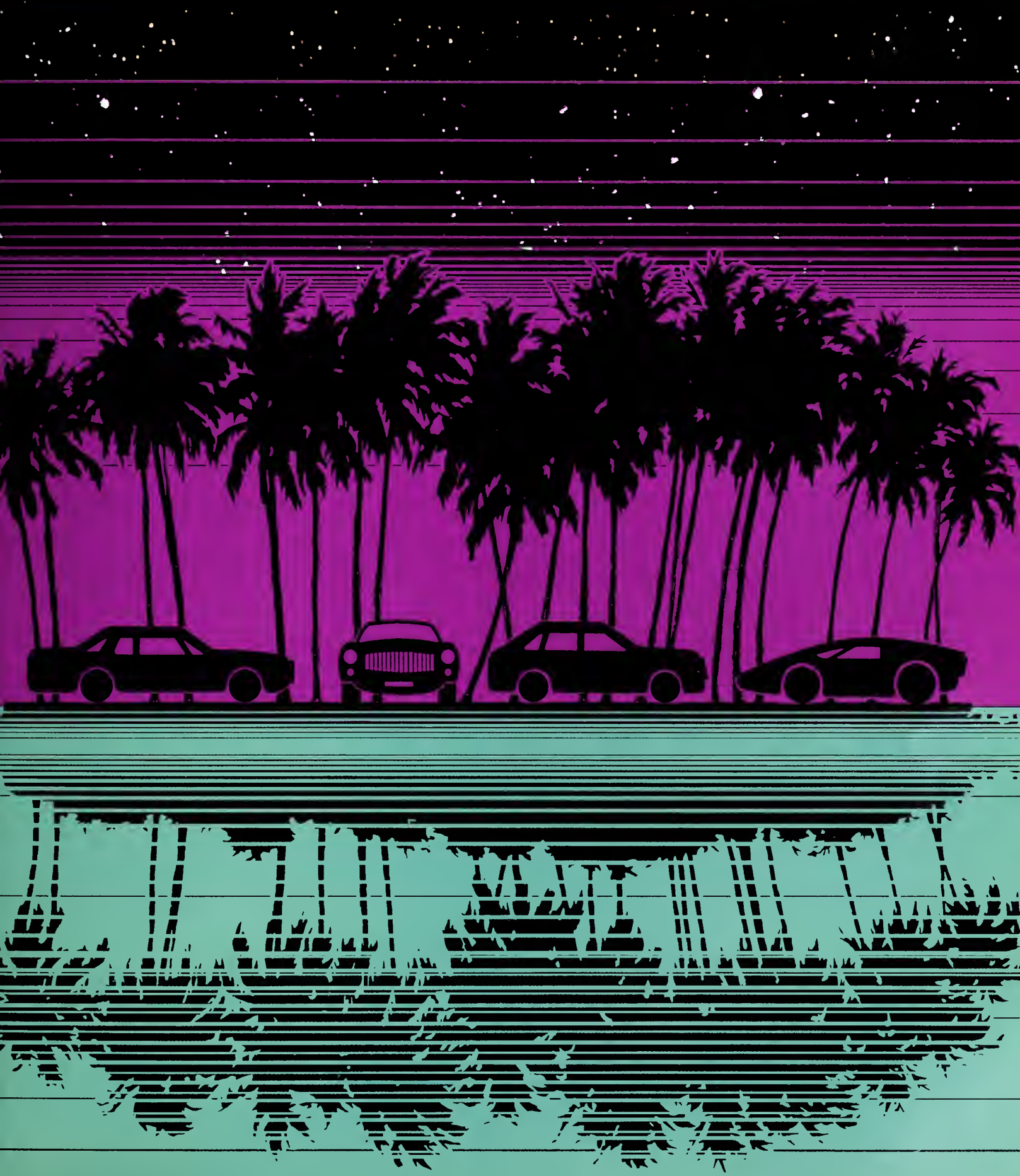
The incidence of Hawaii donors who are reactive by ELISA and Western Blot tests (0.03 percent) is comparable to that reported in Boston, Detroit, and Philadelphia and to overall Red Cross donor prevalence of 38/100,000 donors.[1] (Adjusted incidence for Hawaii donors, March 1985 through June 1986, is now 0.02 percent.)

REFERENCE

Schorr JB, Berkowitz A, Cumming PD, Katz AJ, Sandler SG: Prevalence of HLTV-III Antibody in American Blood Donors. *N Engl J Med* 313:384-5, 1985.

Sneak Preview

HAWAII'S FINEST AUTOMOBILES



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Sneak Preview

Dealer	Address	Phone	Lines	Page
Acura of Hawaii	98-055 Kam Hwy., Aiea	487-7228	Acura	S-9, 11
Chevrolet Dealers Association			Chevrolet	S-13, 15
Rainbow Chevrolet	1341 Kapiolani Blvd.	528-1720		
JN Chevy Mazda	2999 N. Nimitz Hwy.	836-1222		
Service Motors - Wahiawa	105 S. Kam Hwy., Wahiawa	622-4195		
Waipahu Auto - Chevrolet	94-729 Farrington Hwy., Waipahu	671-2871		
Haleakala Motors Ltd.	260 Hana Hwy., Kahului, Maui	877-2066		
Hilo Motors	1177 Kilauea Ave., Hilo	961-5222		
West Hawaii Motors	Kailua, Kona	329-2987		
Kuhio Motors Kauai	3215 Kuhio Hwy., Lihue	245-6731		
Dolphin Leasing	1017 Kapiolani Blvd.	545-5015	All makes autos, trucks, equipment	S-10, 13
The Cutter Team				S-6, 14
Cutter Ford Isuzu	98-015 Kam Hwy.	487-3811	Ford, Isuzu	
Cutter Dodge	3149 Nimitz Hwy.	836-0626	Dodge	
Cutter Dodge	921 Kam Hwy.	455-1071	Dodge	
Rainbow Chevrolet	1341 Kapiolani Blvd.	528-1720	New Chevrolet	
Rainbow Chevrolet	Kapiolani & Kalakaua	943-0031	Used Chevrolet	
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Courtesy Pontiac/ Jeep/Renault	1391 Kapiolani Blvd.	946-8311	Pontiac, AMC Jeep, Renault	
Honolulu Ford	711 Ala Moana Blvd.	523-8200	Ford, Isuzu, Alfa Romeo	S-5, 14
Nissan			Nissan	S-13, 16
Honolulu Nissan	630 Piikoi St.	531-3721		
	621 Dillingham Blvd.	847-6506		
Nissan of Waipahu	94-119 Farrington Hwy., Waipahu	671-2611		
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Kaimuki Nissan	3060 Kapiolani Blvd.	734-0241		
Airport Nissan	545 Lagoon Drive	833-0062		
Nissan Pearl City	806 Kamehameha Hwy., Pearl City	456-5938		
Nissan Wahiawa	1912 Wilikina Dr., Wahiawa	621-0761		
Big Island Nissan	471 Kalanianaole Ave., Hilo	969-1484		
	Kuakini Hwy., Kailua-Kona	329-4408		
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Nissan of Kauai	3033 Aukele St., Lihue	245-6731		
Pflueger Lincoln Mercury	2901 N. Nimitz Hwy.	836-0033	Lincoln Mercury	S-4, 7
Schuman Carriage	1234 S. Beretania St.	533-6211	Cadillac, Buick, Subaru, O'Gara Limousines	S-2, 7
Theo Davies Euromotors Ltd.	704 Ala Moana Blvd.	531-5971	Mercedes-Benz	S-7, 12
Volvo-Hawaii	98-051 Kam Hwy., Aiea	487-7974	Volvo	S-8, 11

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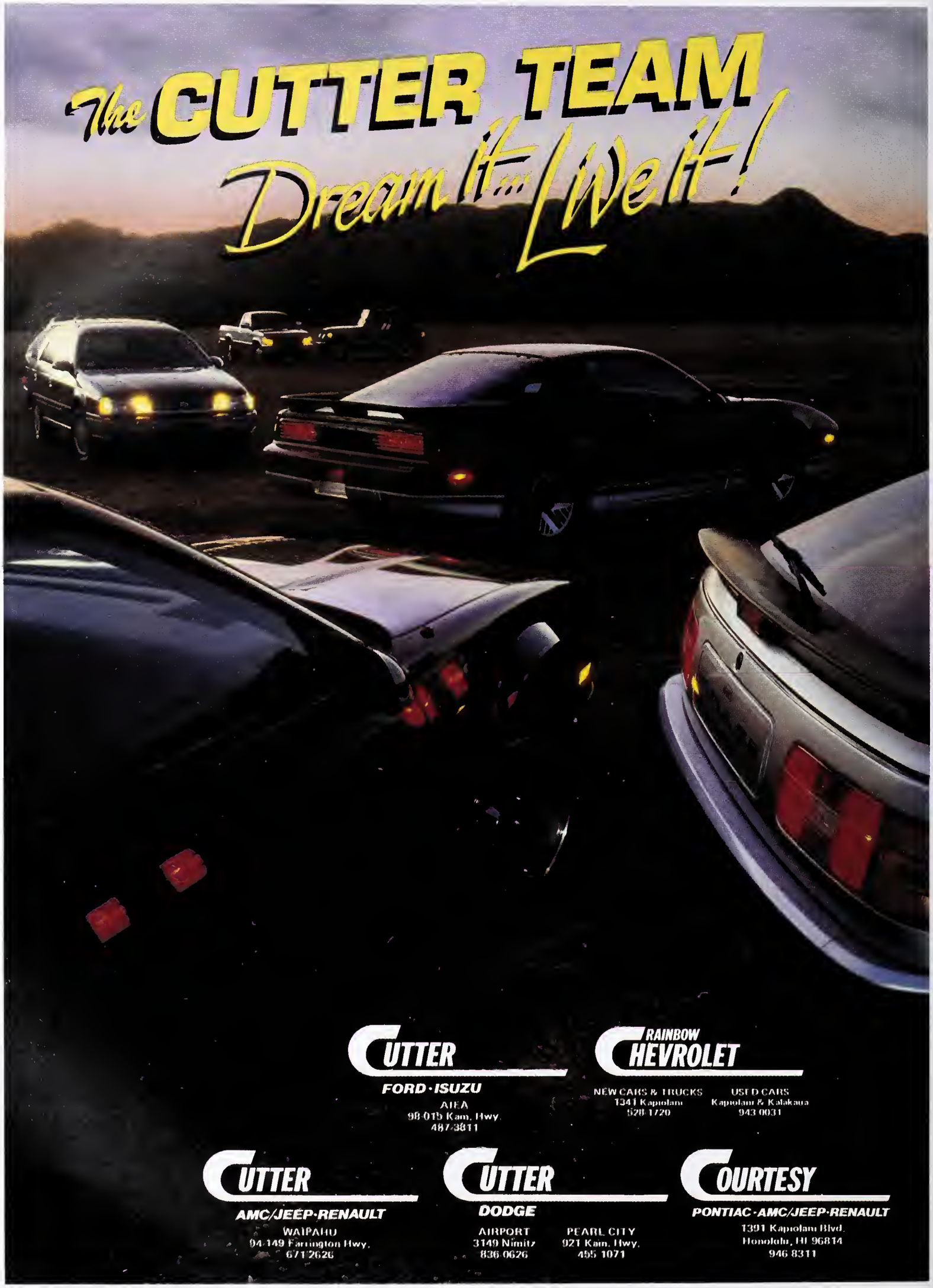
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And especially exciting this year is an automobile for the top bracket: the Cadillac Allante. Priced at approximately $55,000, the Allante signifies a bold new direction for the Cadillac Motor Company. Quick and elegant, Allante is already considered America's first true sports luxury car.

Schuman Carriage will also feature the full line of 1987 Buicks and Subarus. From the hi-tech Buick Riviera to the new Subaru Justi, you can be sure Schuman has an automobile that fits your lifestyle perfectly.

In a way, that's exactly what Schuman Carriage is all about. Pleasing the customer. You won't be subjected to any pressure tactics at Schuman. They believe looking for a car should be an enjoyable experience. And every member of the Schuman staff works hard to make it that way.

The finest salespeople, the finest cars, and the most pleasant atmosphere in Hawaii. That's Schuman Carriage Company. And when you think about it, what else could you want in a car dealership?

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Lincoln Mark VII, Lincoln Continental, Lincoln Town Car. For 1987 Lincoln has made the following changes . . . NONE! When you have a good thing and much to your expectations, why change it.

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The Lincoln Town Car . . . Life is full of compromises. This isn't one of them. The 1987 Lincoln Town Car possesses a regal bearing and formal elegance that is all its own. Yet the reason most often stated for purchasing a Town Car is the aura of achievement and success it reflects upon its owners.

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The 300E sedan is the result of an eight-year search for technical progress and functional improvement. It is the quickest and strongest Mercedes-Benz six-

(Continued on page S-11)

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(Continued from page S-7)
cylinder gasoline engine in recent history.

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The 190E is available in a four- or six-cylinder or sporty 16-valve gasoline-powered engine or in the 190D model with a 2.5 diesel engine. In this fine automobile, the virtues of a performance-oriented sports car are blended with the traditionally solid, civilized and practical Mercedes-Benz to create the 190E.

Sedan or coupe or roadster, gasoline or diesel, stately or sporting or efficiency-minded, Theo Davies Euromotors, Hawaii's only authorized Mercedes-Benz dealer, offers exquisite choices.

Volvo-Hawaii

The last time the Swedes really made any noise was in the sixth century. With King Gustav at Quarterback, they rolled over most of Europe, showed the Prussian and Germanic tribes how to win friends and influence people, and went home with a couple of centuries' worth of booty. Rumor has it that the legendary blonde Swedish girls did not drop out of the sky in Sweden at that particular time, but then most of this group of rumor mongers are Germans. Maybe this is why the Swedes have been quiet for so long.

The Volvo is a real national statement. It is a statement car that has a theme running through it that takes years to comprehend. The theme is shiphood. The Volvo is built like a small ship. It is very strong, very capable, overbuilt to provide a degree of safety in heavy weather, utilitarian but not stark, and it has a soul. People name their Volvos. Volvos appear in pop novels, and trendy movies about college professors with a history. The soul comes from the integrity built into the car by their robust and jolly makers, who still carry the genetic programs of the great Norse seamen.

Somewhere on those long and twisted helixes is a gene that likes to conquer whole peoples, occupy whole continents, and take no prisoners with beards. This gene has somehow worked its way back into the starting line-up at Volvo.

The "Gustav" gene as we will call it, reached out and took Volvo management by the throat last year. What happened? The 780 is what happened. The 780 is exactly one angstrom over the "no more Mr nice guy" line. It is the tiniest bit anti-social. It is big, handsome, brawny, fast, sexy, quick, strong. Do we have the right case here, judge? Is this a Volvo? I wonder what happens when you drive one of these cars through those sleepy little coastal towns in Germany. I wonder if the old women look at that car and get that "here we go again" feeling. Who knows.

Volvo has brought a new feeling of excitement and power into their cars with the new 780 and the legendary Turbos. They are still safe, strong, and quiet as ever, but there is a new projection of geopolitical power in them. Someday, there may even be a series of little round holes in the sides for oars.

Acura of Hawaii

The big news in the world automotive press in 1986 was Honda Motor Co.'s entry in the Luxury sedan, and Sport Sedan markets.

This long awaited Japanese challenge to the Wonder cars of Europe, and the American land yachts resulted in the formation of a completely new division of Honda. The Acura Division was formed as an *Elite Division of Honda* to design and build world class cars in the Luxury and sport sedan classes.

Honda management gave the new division a mandate and a blank check. The mandate was: produce cars *better* than the best European and American cars, bring them in to sell *25% below* the competition, give them *performance,* grace, and next to *zero maintenance,* and don't worry about the development costs. They have a name for this kind of confident boldness in management. They call it the miracle recipe.

You may ask yourself how Honda came to dominate the motorcycle market in the sixties and seventies. They did it in the hardest way imaginable. They sent their engineers to the Grand Prix motorcycle race circuits in Europe with one word on their lips. Win. The legendary engines Honda produced exceeded 13000 R.P.M., and ran flawlessly in the fierce battles with the Italian Magustas. Honda won. Their engineers learned old world secrets in the cathedrals at Monza and the Isle of Mann. Honda incorporated many of their race bred features in their street bikes

(Continued on page S-13)

How to tour Europe's golf courses and bring back the ultimate trophy

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(Continued from page S-11)

and captured the world motorcycle market overnight.

The Acura division chose the same hard road in the development of the new cars. They decided to build a power plant for the Formula One Grand Prix circuit in Europe. There is no more intense competition in the world than formula one. It is the very best of the very best racing in blindingly fast spacecraft on wheels. To build a successful powerplant for this formula, dominated by Porsche and BMW powerplants, is exactly the most difficult automotive engineering task possible. Honda won the Manufacturers Championship on September 21, 1986 at the Grand Prix of Portugal. The Europeans are listening. Again.

The Acura Legend and the Acura Integra are the result of the new division's mandate. They are incredible cars. They are built with state of the art technology, designed to run with almost no maintenance, perform with the very best in the world, look and feel expensive, and priced a full 25% below most of their competition.

The Hawaii Chevy Dealers Association

The '87 model year promises to be a very good year for buyers at Hawaii Chevy Dealers.

This year's national advertising theme is "The Heartbeat of America, Today's Chevrolet." Judging from the great reception of the '87 cars in Hawaii, Chevrolet is living up to that theme, and has definitely got its finger on the pulse of the Pacific.

Your Hawaii Chevy Dealers continue to give everyone more car selection for the money with a wide range of cars and trucks. From high performance cars like Corvette, to the fun, gas-thrifty little Sprint with the best E.P.A. figures around. They've got the number one selling American car in Hawaii and the U.S.A., Chevy Celebrity and the popular Eurosport model.

Chevy dealers have cars and trucks people in Hawaii want and need. Cars like Nova, Citation, Spectrum, Monte Carlo SS, and Camaro. Trucks and vans like Hawaii's favorite S-10 Blazer and the handy, rugged Astro van.

There's more to come for '87. Everyone is anxiously awaiting the arrival of the new Chevrolet Beretta.

It's all just a part of a never ending commitment to give people value and choice. It's what made Chevy Dealers number one. And it's going to keep them there.

See your Hawaii Chevrolet Dealer today and check out the new '87 Chevrolets for yourself. You'll like what you're seeing.

Dolphin Leasing

The new Tax Reform Act of 1986 has taken some of the variables out of the lease or buy decision-making process. ITC's are history and depreciation is a whole new ball game. The cashflow picture takes on a renewed importance. Monthly payments on leases are lower than fully amortized purchases and the "No Down Payment" feature of a lease is attractive to clients, with strong liquidity preference. Other features of leasing include how asset acquisition impacts financial reporting requirements (off balance sheet financing). On operating leases, assets may not appear as long term debt on the balance sheet, but as equipment rental on operating statements. The result being greater appearant liquidity and a greater ROI. Improvement on borrowing power could result as well as increased bonding capacity.

With the tax incentives of ownership being reduced by the new legislation, leasing inquiries are up by almost 200%. Leasing is a less restrictive form of financing, providing a diversification of financing sources. Leasing provides an additional source of capital leaving working capital resources intact.

Dolphin Leasing Corporation leases all makes and models autos, trucks, and equipment at competitive rates.

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Nissan

Against the best competition from America and abroad, the NISSAN MAXIMA was selected as "The Best Luxury Sedan Buy Under $25,000." One big reason for MAXIMA's strong appeal is its extensive list of standard equipment including power rack-and-pinion steering, power four-wheel disc brakes, AM-FM stereo radio/cassette with graphic seven band equalizer, power door locks, windows, radio antenna and rear view mirrors, cruise control, an anti-theft system, tilt steering wheel and much more.

(Continued on page S-14)

(Continued from page S-13).

The NISSAN MAXIMA never compromises when it comes to style, luxury and performance. For 1987 MAXIMA's grille has been sloped slightly toward the bumper and some of the car's lines smoothed out, giving the MAXIMA more sweep from front to rear. The 3.0 litre V-6 engine, the luxurious interior, the state-of-the-art componentry and the basic design have remained unchanged in the belief that the car has been successful because of what it is already.

A number of features have been added to increase the car's appeal. The new MAXIMA has redesigned alloy wheels incorporating flat surfaces for a cleaner look and better aerodynamic performance. The car is now equipped with rear seat shoulder belts in the two outboard positions, and the standard power windows have a new "single touch," automatic down feature on the driver's side.

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Honolulu Ford

In case you haven't noticed, Fords aren't the only fine cars at Honolulu Ford anymore. The Ala Moana dealership also happens to be Hawaii's exclusive dealer for the famous Alfa Romeo line of Italian-made sports cars. And for 1987, Honolulu Ford has introduced the brand new Alfa Romeo Milano, a luxury sports sedan offering high performance at a comfortably low price.

Automotive journalists are hailing the 1987 Milano as the ultimate high-performance sports sedan, a four-door masterpiece of European engineering and design featuring an impressive array of standard features. The Milano's 154-horsepower, 2.5 liter V-6 engine gives it a top speed of almost 130 miles per hour. And Milano's luxurious interior, says Motor Trend magazine, is "one of the nicest Euro interiors around."

Motorists can test drive the new Milano at Honolulu Ford/Alfa as well as the rest of the magnificent Alfas: the classic Spider Veloce, the hardtop Quadrifoglio convertible, the GTV-6 Coupe hatchback, and the Graduate convertible.

Of course, Honolulu Ford also offers motorists Hawaii's largest selection of Ford Motor Company products, including luxurious LTD's and sporty Mustangs, sturdy Bronco and Ranger trucks, and the revolutionary, aerodynamic Taurus.

But even here, the selection doesn't stop. Because Honolulu Ford is also an authorized dealer for the complete line of Isuzu cars and trucks: The I-Mark front wheel drive economy sedan, the P'UP compact truck and the Trooper II 6-door sport utility vehicle, and the flagship Isuzu model, the turbo-charged Impulse.

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With the wide selection of models, distinctive features and accessories, how does the new or used car buyer make the decision as to what car is right for him? The Cutter Team feels if you don't know the cars, know the dealer. They have over 36 years of auto experience so they know their customers and their customer's needs.

The Cutter Team began locally with one dealership, Cutter Ford in Aiea. Since then they've grown to include Cutter Ford/Isuzu, Rainbow Chevrolet, Cutter Dodge, Courtesy Pontiac/AMC Jeep Renault and Cutter AMC Jeep Renault. This wasn't growth for growth sake alone. It allows them to conveniently service the many local communities throughout Oahu. It also provides their employees the ability to meet new challenges.

Customer satisfaction is The Cutter Team's main concern. With their wide selection and huge inventory of domestic and imported cars at each location, they will assist you in the complex task of buying a new or used vehicle. Each location is full service including financing, insurance, parts, service and complete customer care before and after the sale.

To quote owner Jerry Cutter, "The Cutter group is a totally people-oriented company. It encourages the hiring of honest, hardworking and thoughtful people who are willing to work together to attain a common goal, that, of customer satisfaction. We must always remember that customers are not an interruption of our work but the purpose of it."

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Continuing Medical Education

CALENDAR OF ACCREDITED EVENTS—CATEGORY 1

Accredited Programs of CME allow one unit of AMA credit for each hour of instruction excluding all "breaks." Some programs also are accredited for AAFP prescribed credit.

LOCAL ACCREDITED PROGRAMS

ONGOING

For a complete list of ongoing programs, please refer to the September 1985 issue of the HAWAII MEDICAL JOURNAL. Further information is available through the individual institutions or through the HMA's CME Department.

SPECIAL EVENTS

All special events should be confirmed with the CME program sponsors, as cancellations are not necessarily reported to the HAWAII MEDICAL JOURNAL.

Nov. 2-8, 1986	Districts VII-IX Continuing Medical Education, American College of Obstetrics and Gynecology, 600 Maryland Ave., SW, Suite 300E, Washington, D.C. 20024, Attn: Barbara Kallas, (202) 638-5577. Location: Hyatt Regency Maui.
Nov. 5, 1986	Neurology Update: Parkinsonism and Other Movement Disorders, Julie Woo, Straub Foundation, 888 S. King St., Honolulu 96813, (808) 523-2311. Location: Hyatt Regency, Honolulu.
Nov. 30-Dec. 3, 1986	Kawasaki Syndrome Research Conference, co-sponsored with the American Heart Association, the Center for Disease Control, and the NHLBI of the NIH. Location: Kauai Hilton and Beach Villas.
Dec. 21-27, 1986	Allergy, Immunology and the Practicing Physician, Symposium Maui Inc., Joe Harrison, MD, P.O. Box 10185, Lahaina 96761, (808) 661-8032. Location: Royal Lahaina, Kaanapali, Maui.
Dec. 27, 1986 - Jan. 3, 1987	Advances in Internal Medicine, University of Washington School of Medicine, Continuing Medical Education, Health Sciences Center E-303, Seattle, Wash. 98195, (206) 543-1050. Location: Sheraton Kauai.
Dec. 28-1986 Jan. 3, 1987	Psychiatry and the Practicing Physician, Symposium Maui Inc., Joe Harrison, MD, P.O. Box 10185, Lahaina, HI 96761, (808) 661-8032. Location: Royal Lahaina Resort, Maui.
Jan. 7-14, 1987	A Conference On Love and Sexuality, and On Women and Men as Loving Allies, Dr. Joyce Jennings, president, HPI, P.O. Box 226, Claymont, Del. 19703, (302) 475-0693. Location: Turtle Bay Hilton, Oahu.
Jan. 18-24, 1987	ACOG CME, American College of Obstetricians and Gynecologists, 600 Maryland Ave. S.W., Washington, D.C., 20024, (202) 638-5577, Dr. Harrison C. Visscher. Location: Kauai.
Jan. 26-30, 1987	Fifth Annual Hawaii Conference on Gas-trointestinal and Hepatic Disease, Honolulu Medical Group Research and Education Foundation, Gary Glober, MD 1380 Lusitana St., Honolulu 96813. Location: Hyatt Regency Maui.
Feb. 1-7, 1987	Eighth Annual Royal Hawaiian Eye Meeting, Hawaiian Eye Foundation, John Corboy, MD, 606 Kilani Ave., Wahiawa 96786-1993, (808) 621-8448. Location: Kona Surf, Big Island.
Feb. 17-21, 1987	Current Problems in Internal Medicine, William L. Nietz, Division of Education, Mayo Clinic, Rochester, Minn. 55905, (507) 284-2085. Location: Maui Marriott.
March 8-13, 1987	Hawaii '87: Critical Issues in Primary Care, Pacific Institute of Continuing Medical Education, Valerie Murray, P.O. Box 1059, Koloa, Hawaii 96756, (808) 742-7476. Location: Waiohai Hotel, Kauai.
March 23-27, 1987	OB/GYN Update 1987, co-sponsored with the University of Washington, Department of Obstetrics and Gynecology. Location: Sheraton Royal Waikoloa.

Natural Killer Cell Function In Cancer Patients Treated With Natural Leukocyte Interferon-alpha

Clara Ching, PhD*; Clifford Wong, PhD*; Maria Venie Cruz, MS*; Dean Sato, BS*; G. Kaui Wong*; Ronald Herberman, MD††; Nathaniel Ching, MD**†

Biological response modifiers (BRM) such as interferon (IFN) and interleukin-2 (IL-2) offer new immunotherapeutic approaches to cancer by increasing the body's own natural immune system to kill tumor cells. A Phase II clinical trial with natural human leucocyte IFN (IFN alpha, Warner-Lambert), 1 million units three times a week for eight weeks, has been designed to produce sustained augmentation of natural effector functions and anti-cancer effects.

In Hawaii, this protocol is available for selected cancer patients with recurrent nasopharyngeal, breast, renal, head-neck carcinomas, non-Hodgkin's lymphoma, chronic myelogeneous leukemia, hairy cell leukemia, multiple myeloma and melanoma. Natural killer cell (NK) function was monitored using the herpesvirus infected fibroblast, NK(HSV-1) and the human erythro-myeloid leukemia cell line K562, NK (K562) in nine cancer patients (7 renal cell Ca, 2 breast Ca).

An initial response in NK(K562) activity was observed after one week of therapy. However, the NK(K562) activity returned to baseline levels during the remainder eight-week course. In two renal cell cancer patients, NK (HSV-1) activity showed a trend toward increased activity during IFN treatment. Patients with nasopharngeal carcinoma treated with higher doses of IFN alpha (9x 10E6 U/day for 30 days) showed decreased NK activity and lymphoproliferative response to PHA.

The present study shows that this Phase II protocol did not result in the severe depression in NK activity of the renal cell cancer patients as reported in other studies.

An optimal immunomodulatory dose or schedule for biological response modifiers (BRM) such as interferon (IFN) and interleukin-2 (IL-2) has yet to be defined. BRM can offer new immunotherapeutic approaches to cancer by increasing host anti-tumor responses through augmentation and/or restoration of natural effector mechanisms, or by their direct anti-proliferative effects on tumors.

Natural killer (NK) cells are now recognized as a major component of the host immune defense system involved in immunosurveillance against tumor development and microbial infection.[8, 9] In most clinical IFN trials, high-repeated IFN doses have resulted in a depression of NK activity.[11, 12-15] The major objective of this study was to determine the immunomodulatory effects of a "low dose" IFN protocol on natural effector cells and whether the herpesvirus infected fibroblast may be a more relevant target to monitor NK activity.

Materials and Methods

I. Clinical Population: Warner-Lambert natural leukocyte alpha-interferon provided by the BRM Program, NCI-FCRF, Frederick, MD, was administered IM three times a week, using a dose of 1 million units, for a period of eight weeks. Nine cancer patients with advanced metastatic disease, two with breast carcinoma and seven with renal cell carcinoma, have thus far been treated with this IFN protocol. All patients gave informed consent.

II. Immunologic Study: Multiple immunologic parameters, NK function, mitogen-induced lymphoproliferation, and lymphocyte subpopulations were monitored according to the following schedule: two baseline determinations and 24 hours after the first two doses; and again prior to IFN therapy on Monday, and 24 hours following therapy, on alternate weeks. Peripheral blood mononuclear cells (PBM) from heparinized venous bloods were separated by the Ficoll-Hypaque (FH) density gradient sedimentation method of Boyum.[2] PBM were washed and resuspended in RPMI 1640 medium containing 10 percent heat-inactivated fetal bovine serum (RPMI-FBS), 100 units of penicillin per ml, 100

From the Departments of Medicine* and Surgery,** University of Hawaii School of Medicine,† St. Francis Medical Center, Honolulu, Hawaii,†† The Pittsburgh Cancer Institute, Pittsburgh, Pa.

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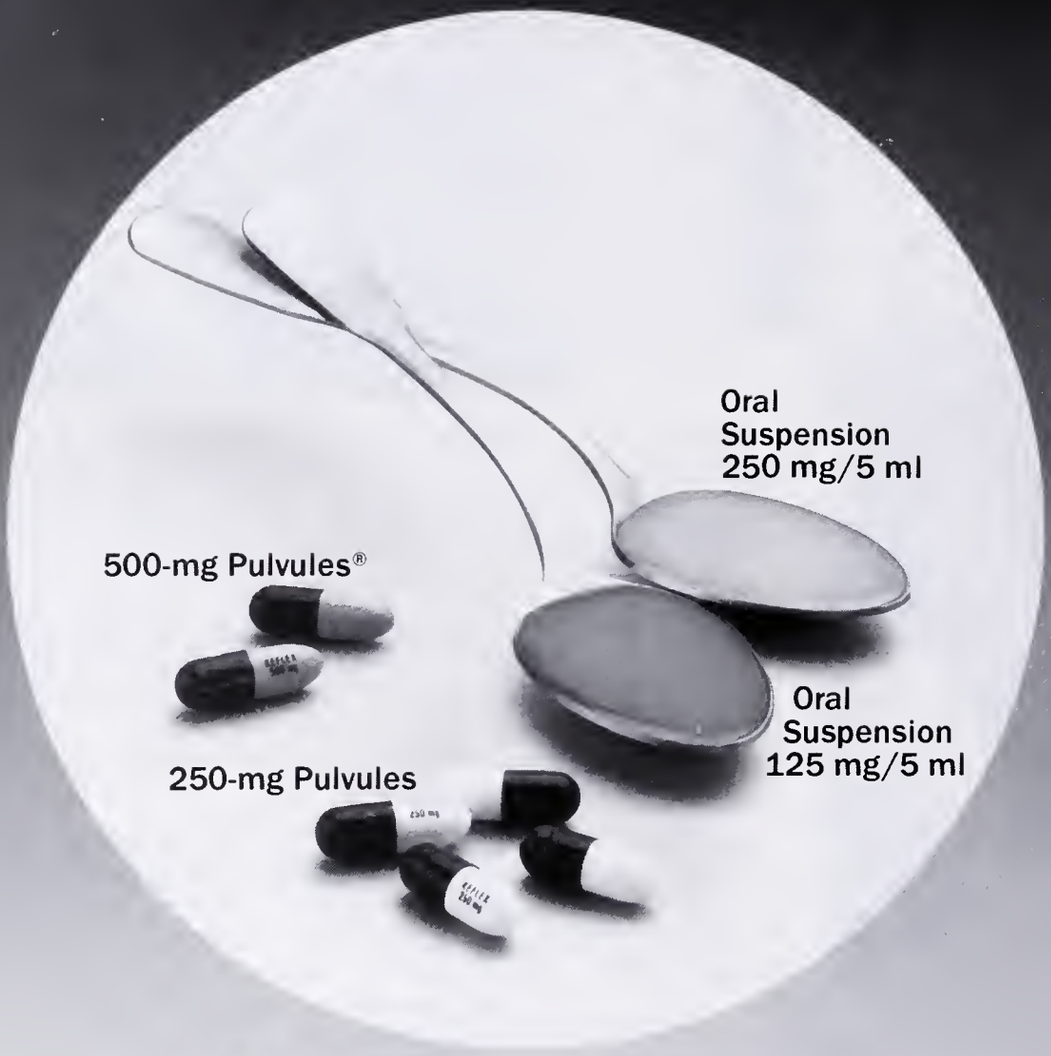

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g of streptomycin per ml, 2mM glutamine, and 20mM HEPES.

NK activity to human foreskin fibroblast (FS4) targets, infected with HSV-1, NK (HSV-1) and uninfected, NK (FS), was determined in a 14-to-16 hour ^{51}Cr release assay as described by Ching et al.[3, 4] To test for *in vitro* IFN augmentation, Leu-IFN-alpha (1000 Units/10E6 PBM) was added to PBM and incubated for one hour at 37°C before assay. NK activity to K562, a human erythromyeloid leukemia cell target, NK (K562), was determined in a three-hour ^{51}Cr release assay similar to the NK (HSV-1) assay. For the analysis of NK data, the exponential fit equation, where $y = A[1-\exp(-kx)]$, was used.[16, 17] Procedures for rigorous standardization of the NK assays for daily variations were included.[13-15] Lymphoproliferative response to phytohemagglutin (PHA) was determined in Terasaki plants.[14] Lymphocyte subpopulations were analyzed by flow cytometry (St. Francis Hospital, Department of Pathology) using fluorescein-labeled monoclonal antibodies (Ortho Diagnostics, Raritan, NJ): OKT8 (suppressor/cytotoxic T cells); OKT4 (helper/inducer T cells); OKT3 (pan T cells).

Data Management and Statistical Analysis: Data was maintained in Lotus 123^{R} (Lotus Development Corp., Cambridge, Mass.) files and statistical analysis performed on an IBM-XT microcomputer utilizing the PC-Stat program (Human Systems Dynamics, Northridge, Calif.) In serial studies of patients receiving IFN therapy, NK data (Lytic Units at 20 percent cytotoxicity) were transformed to and expressed as percent of change from the mean of the two pretreatment analyses of NK activity in order to compare changes between different patients. The differences between unrelated samples were compared utilizing the non-parametric Mann-Whitney test; related samples were analyzed utilizing the paired t-test.

Results

I. Nasopharyngeal carcinoma (NPC) patients treated with Hu Leu-Alpha IFN (Cantell) 9x 10E6 U daily for 30 days:

NK activity in NPC patients treated with 9x 10E6 U IFN daily for 30 days decreased significantly during continued IFN administration (Figure 1). In one patient, therapy was interrupted because of extreme weakness and lethargy. However, after a rest period of two weeks, NK activity returned to normal levels.

II. NK Activity During IFN therapy with natural human leucocyte

Figure 1

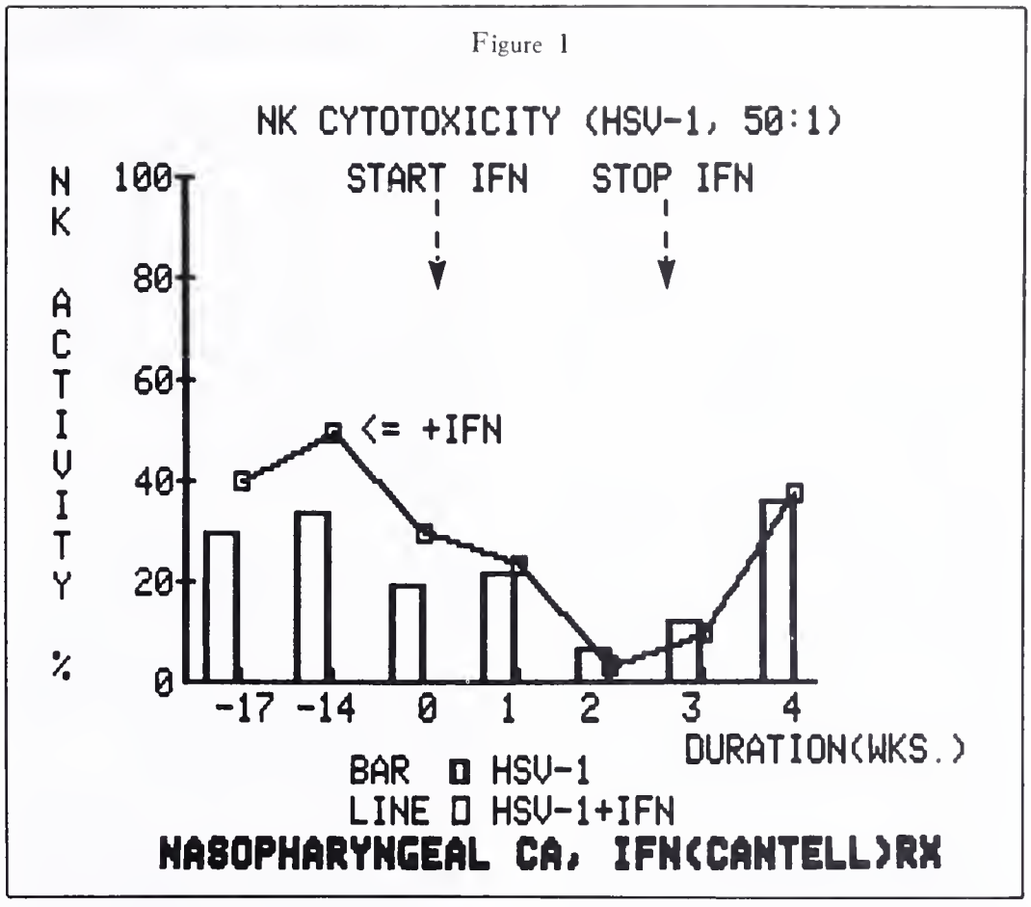
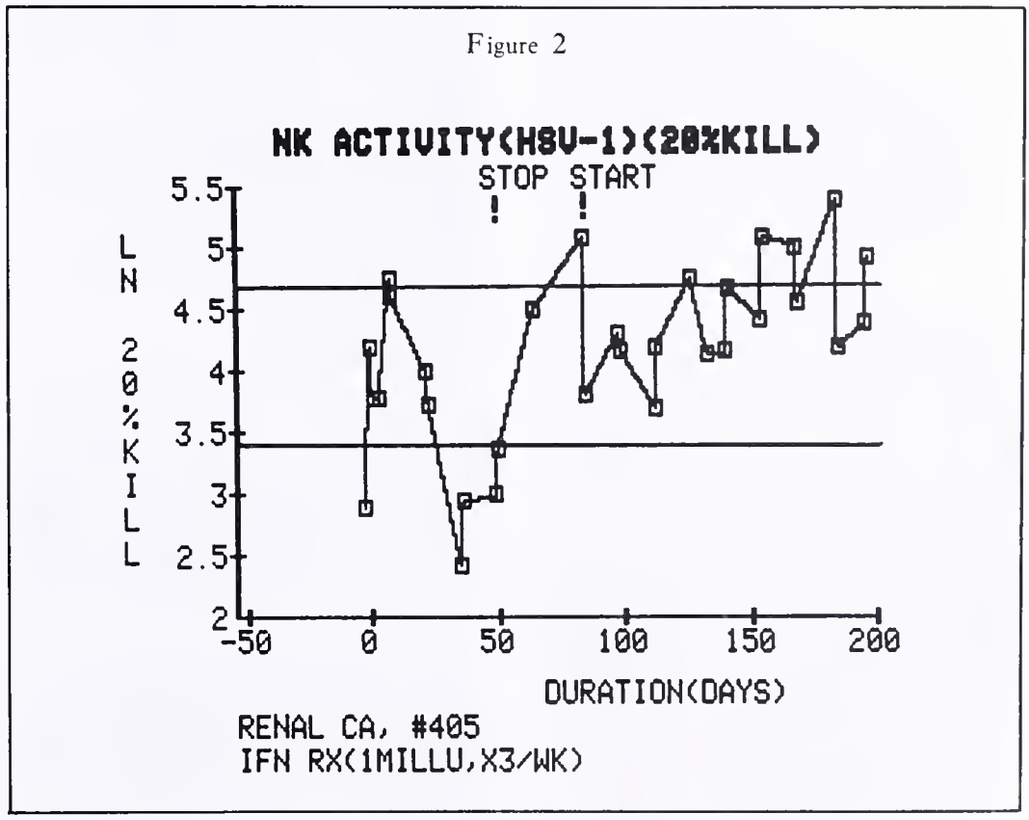


Figure 1: NK (HSV-1) activity, expressed as percent NK activity, decreased in a nasopharyngeal cancer patient receiving nine million units of HeLeuIFN-alpha daily for 30 days. IFN was discontinued because of lethargy. During this rest period, NK activity increased to baseline levels.

Figure 2: NK (HSV-1) activity in a renal cancer patient receiving one million units of HuLeuIFN-alpha three times weekly expressed as the natural logarithm of the standardized lytic units [LN(LU)]. Horizontal lines mark ± 1 S.D. of the mean LN(LU) of the normal population. A progressive increase in NK activity was observed.

Figure 2



IFN—alpha (Warner-Lambert), 1 million units, three times a week for eight weeks:

NK activity was measured pre- and 24 hours post-IFN administration. All NK (K562) activity measurements before IFN injections averaged 130 percent ±66 of baseline values [these measurements represent samples taken from zero to eight weeks and may represent some deviation from initial baseline averages]. Measurements taken 24 hours after IFN injections averaged 154 percent ±88. NK (K562) augmentation, however, was not statistically significant utilizing the paired t-test analysis.

Similarly, there was no boosting of NK (HSV-1) levels, 108 percent ±90 (pre) and 118 percent ±90 (post IFN administration). However, when the patients were individually analyzed, two out of seven renal carcinoma patients had significant increases in NK (K562) activity, 24 hours after their IFN administrations. ($P < 0.05$, by Mann-Whitney analysis of the first week's results. NK (HSV-1) activity increased from 94 percent ± 58 to 117 percent ± 92, with no significant difference.

III. NK activity following in vitro treatment with IFN:

The *in vitro* stimulation with IFN of PBM from renal carcinoma patients resulted in significant augmentation of NK activity by paired t-test evaluation. NK (K562) increased from 330 LU ± 343 to 503 LU ± 555; NK (HSV-1) increased from 69 LU ± 52 to 123 LU ± 102, both $P < .001$. This increased *in vitro* augmentation could also be demonstrated in samples drawn 24 hours after IFN administration. In contrast, breast patients PBM showed no further augmentation of NK (K562) activity (125 LU ± 134 vs 171 LU ± 112). Augmentation to NK (HSV-1) activity was observed (24 ± 21 vs 39 ± 32).

IV. Trends in NK Activity in Selected Cancer Patients:

Two breast carcinoma patients showed significant depression of NK (HSV-1) activity with therapy. Figure 2 shows the NK (HSV-1) activity in a renal carcinoma patient. This renal patient had high pretreatment NK (K562) activity, but NK (HSV-1) was quite low. NK (K562) remained above normal levels while NK (HSV-1) continued to show a trend towards increased activity during IFN therapy. The NK (HSV-1) activity in this renal carcinoma patient was significantly boosted initially followed by a decline. However, with the start of his second cycle, a gradual increase in NK function during IFN therapy was seen. This patient has continued with IFN medication and is currently on his fifth course of treatment.

V. Lymphocyte Proliferative Assay and Lymphocyte Subpopulation:

Lymphoproliferative response to PHA in the renal cancer patient depicted in Figure 2 was within the lower range of normal values and was generally maintained at the baseline level throughout therapy. The second patient (MA) also had low normal values which showed a slight increase with therapy and was maintained within the normal range. Lymphoproliferative response at the pretreatment baseline level was low in renal patients AT, MK (1631, 6415cpm); RP had 14,025 cpm in the low normal range (normal range 19,399 ± 5,944).

The OKT4/OKT8 ratio in nine cancer patients was analyzed. Three renal and one breast patient had ratios less than 0.7 (normal ranges were 0.7 to 2.8). These three patients did not complete their course of IFN therapy because of weakness or progression of disease.

Discussion

In the present investigation, NK function was examined to determine the immunomodulatory effects of this natural human leucocyte IFN protocol on the natural immune system. The hyporesponsiveness of NK function after multiple high doses of IFN has been demonstrated in murine models[19] and in IFN clinical trials.[11] The main objective of this protocol was to minimize this hyporeponsiveness by utilizing a lower dose of IFN intermittently over longer periods.

This study did demonstrate an initial augmentation of NK (K562) activity during the first week of IFN administration. However, this augmentation was not maintained and was followed after the first week with a decrease either to pretreatment levels or below. Similar results have been reported.[1, 5, 6]

In this preliminary report, the extent of the decrease seen appeared related to the type of cancer being treated. Breast cancer patients had greater decreases in NK activity to the leukemic cell, K562. NK to the herpesvirus infected targets showed no initial augmentation with decreased activity noted during therapy to levels below our normal donors' range. This decrease was not as great as that observed by Maluish et al.[13]

Our preliminary results suggest that this IFN protocol at a dose of one million units, three times a week, did not result in as severe a degree of hyporesponsiveness in NK activity as reported in some clinical trials using high repeated IFN doses. In a renal patient who completed four cycles of IFN therapy and showed stabilization of disease, NK (K562) function was maintained at the pretreatment baseline level while NK (HSV-1) showed a gradual increase in cytoxicity. In addition, lymphoproliferative response (LPA) to the polyclonal mitogen PHA as measured by $_3$H thymidine incorporation was maintained throughout IFN therapy at the same pretreatment baseline level in this patient.

Future studies should be done with protocols designed with different IFN dosage levels above the one million unit level. The appropriate higher dosage levels may result in further enhancement since *in vitro* pretreatment with IFN of renal carcinoma patients' lymphocytes demonstrated further augmentation of NK activity. The two breast cancer patients with a trend toward decreased NK activity, showed no significant boosting of NK (K562) activity after *in vitro* IFN treatment. Increasing the dose of IFN may have no effect on the immunological response in these breast cancer patients but may benefit the renal cancer patients currently treated.

Definitive clinical correlations of efficacy cannot be made at this time since these cancer patients had varying degrees of advanced metastases with heavy tumor burden. In two renal carcinoma patients, disease stabilization in the size and numbers of pulmonary metastases was observed. Liver and bony metastases progressed in both the renal and breast carcinoma patients. This dosage level appeared to be tolerated fairly well in the patients unless there were liver metastases. During IFN therapy significant increases in SGOT and LDH levels were observed in a patient with liver metastases.

In summary, the present study suggests an immunomodulatory effect on NK function with this IFN administration regimen. Trends seen in the levels of the NK subpopulation to the herpes virally infected fibroblast and its biological relevance in cancer need to be analyzed in additional patients and followed clinically over a longer period. This IFN protocol was shown to maintain or augment NK activity dependent on the targets used and would prove important if IFN treatment were to prove useful in adjuvant or combination therapy with various chemotherapeutic agents.

In certain solid tumors which have not

(Continued on page 408)

Early History of the Hawaii Academy of General Practice

The American Academy of General Practice was founded in 1947 by members of the AMA who were in the General Practice Section of that medical association. These members were the general practitioners who wanted to be out from under the AMA.

The only one of us here in Hawaii who can claim senior charter membership in the AAGP — 39 years ago — is Varian Sloan, MD, but he was at that time a Californian. He is now very much a Hawaii resident and a member of the Hawaii AAGP/AAFP since 1956. However, there were others from Hawaii who joined national AAGP in 1947, who all have since passed away. These were Marie Faus, Martin Lichter, and Archie Orenstein, the latter from Hilo. Sloan is retired from practice at the present.

In 1948 Bill Walsh, a resident of the islands, became a member; also Verne Adams, then of Oregon but now a retired physician on the Big Island, joined up. These doctors all joined as individuals. Walsh is retired on disability and is recuperating from a severe surgical experience at the time of this writing.

In 1949 nine more generalists joined the national organization directly on their own, since no Hawaii chapter existed at the time. They were: Bergin, Boyd, Devereux, Goodhue, Loo, McArthur, Ozawa, Seymour, and Wallis. (This is all according to what I have been able to dredge up from very old files.) Wilmot Boone, brother of Ed Boone, joined in 1949; he now lives on the Big Island, but at the time of his joining he was in Oklahoma. Of these, all except Goodhue of Kauai, and Wilmot Boone, are deceased (I'm not certain about Loo).

In 1950, Bob Chung of Kailua, Oahu, joined as an associate member; Brensinger and Cocks at Tripler became members.

In the meantime, Alvin Majoska, in 1948, called a meeting of all general practitioners in Hawaii to organize them into an effective body to counter the growing influx of specialists who wanted to assume control of the hospitals. Some 80 physicians gathered together and organized themselves into the Hawaii Territorial Academy of General Practice.

Although they were cognizant of the AAGP on the Mainland, the local generalists resisted joining mainly because they saw no point in contributing a part of their dues to the national organization in exchange for meager favors from that far-off place.

Nevertheless, through the organizing zest and efforts of Maxwell Boyd at Tripler, a small group of 10 physicians petitioned AAGP for a charter as a constituent state chapter. These men were, besides Boyd: Jiggs McArthur of Maui, Sam Wallis and Bill Goodhue of Kauai, Walter Ozawa, Bill Walsh, Martin Lichter (Rowlin's dad), John Devereux, and Walter Seymour and Bill Bergin of the Big Island. The charter was granted and dated Sept. 14, 1950. Bill Walsh was elected president.

Seven months later, on April 2, 1951, another charter was issued by national AAGP to the Hawaii Territorial Academy of General Practice. Listed on it are the names of the previous 10, plus seven more: William Brensinger, Robert Chung, George Cocks, Marie Faus, Archie Orenstein, Walter Loo, and Les Vasconcellos

(Interestingly and now ancient history, with no intent to malign in retrospect, Maxwell Boyd is listed as an MD in the two charters, but he later was revealed as a medical administrative officer at Tripler with the collar insignia a caduceus but with the letters MAC superimposed. He had succeeded in passing himself off as a physician rather easily! The unfortunate man drowned off Hana not many years after that.)

In addition to the 17 names on the charter, the original roster of members numbered 87, but a later memorandum deleted seven of them as not desiring to join. Presumably, this is *the* official charter that established the Hawaii Chapter AAGP.

There's more to the story. John Felix, revered medical leader and a general practitioner, went to the annual meeting of the California chapter, AAGP, in 1950 at the Hotel Coronado in San Diego to find out how a Hawaii chapter could be formed. There he met up with Varian Sloan, who was a member of the AAGP Board of Directors at the time. Felix and Sloan knew each other, both having attended USC School of Medicine, with Felix one year behind Sloan.

Sloan later visited Hawaii in 1953 as a member of the AAGP Commission on Education and gave the keynote address at a meeting of the already-organized Hawaii chapter. He liked Hawaii so much that he moved here with his wife, Erna, and transferred his membership to the Hawaii chapter in 1956.

Bill Walsh relates that since he was elected president of the Honolulu County Medical Society in 1950, he had to give up being president of the initially chartered Hawaii Academy of General Practice, in favor of John Felix.

John Devereux in 1966, in response to my request that he write up the history of the Hawaii chapter, had this to say: "We were issued our affiliation with the national society (sic) by Dr. Stanley Truman at a meeting held at Lau Yee Chai in 1951. Mr. McCahl (sic) (Mac Cahal, JD, was the Executive Director and General Counsel of AAGP) of the national chapter (sic) was also present. We later had the privilege of having Dr. Fowler and Dr. DeTar, presidents of the national chapter (sic), meet with us . . ." Devereux died quiet a few years ago.

As stated above, Les Vasconcellos joined AAGP in 1950. Why a second charter was issued in 1951 with 17 names on it, including the name Vasconcellos, instead of the first charter in 1950 with 10 names, is difficult to determine; perhaps a reader who was present at the time and who remembers details, can fill in this blank.

At any rate, Vasconcellos tells us now that it was Maxwell Boyd, the behind-the-scenes manipulator and king-maker, who prevailed upon Vasconcellos to run for president as a compromise candidate. Vasconcellos won the election and served for the first three years of the fledgling chapter as president, based on the 1951 charter.

J.I. Frederick Reppun, MD
HAGP Member

Arthur Leslie Vasconcellos, MD

By J.I. Frederick Reppun, MD

On the occasion of the annual meeting of the Hawaii chapter of the American Academy of Family Physicians on Feb. 22, 1986, we honored one of our charter members.

This is just one of them — for starters. The others won't be left out; we'll try our best to get to them before too long — before they/we all "fade away" like the old generalists are supposed to do!

On Oct. 10, 1986, Dr. Arthur Leslie Vasconcellos was presented with the HMA Physician of the Year Award for Outstanding Community Service.

Congratulations and mahalo to Dr. Vasconcellos for his many years of service not only to the medical community but the general community as well.

A. Leslie Vasconcellos was born on Dec. 14, 1915, in Kahului, Maui, delivered of his mother by the family doctor, Augustine Crane, MD. Leslie's father, John Vasconcellos, was chief engineer for KRR — the Kahului Railroad — which was the essential means of transportation in those days, of sugar cane from the vast acreage of central Maui to the mill of the Hawaiian Commercial and Sugar Co. (HC&S) and the freighters at the docks of Kahului deepwater harbor.

John had the additional and more interesting avocation of being the itinerant "moving-picture man," taking projector and screen from one plantation village to another and setting up in a tent for one-night stands, much to the delight of the children and their worker parents, charging a penny to a dime a head. The silent movies of those days overcame all language barriers because they were in pantomine.

Leslie's mother was a Joseph. She and John had both come to the islands as children, one from Madeira in Portugal and the other from the Portuguese Azores. They met on Maui, where they grew up, got married and had nine children, Les being the youngest. Of the seven boys and two girls, only one of each are surviving.

When Les was 4 years old, the whole family moved to Santa Clara, Calif. He attended Santa Clara University from 1934 to 1937 and then went on to Creighton Medical School in Omaha, graduating in 1941. When his older brother Augustine went into coaching rather than continuing in premed, Les was persuaded by his father to step up and go into medicine.

Young Dr. Vasconcellos' application to interne at Queen's in Honolulu was furthered by then-Hawaii Delegate to Congress Manual G. Paschoal. However, the interneship was interrupted after five months by the attack on Pearl Harbor and World War II. On that fateful Dec. 7, Les made national front-page news and was pictured in Life magazine as the physician-on-duty in Queen's emergency room when casualties from the bombing were brought in to be treated by him. (Years later, the pictured patient accosted Les and reminded him of their meeting; both had been unnamed in the caption.)

Les met his wife, the former Madalin Faltin, at St. Joseph's Hospital in Omaha, an affiliate of Creighton Medical School. She was the student nurse who had attended him when he had broken his arm skiing. Both graduated from their respective schools the same year. Madalin came to Hawaii and, fresh from nursing school, got the job of OB supervisor at St. Francis Hospital here.

Having been commissioned as a 1st lieutenant in the Army Medical Corps upon graduation from Creighton, Les was immediately called to active duty on his birthday, seven days after Pearl Harbor, and assigned to the prisoners' ward at the old Tripler Army Hospital.

Prisoners, you ask? What prisoners, on day seven of the war? Well, it turns out these were civilian Italians and Germans who were rounded up promptly and jailed; after all, Hitler and Mussolini had been at war with the Allies since 1939! Historically, little mention has ever been made of these ethnic groups, as compared with the publicity attendant upon the internment of the Japanese-Americans.

Les and Madalin were married at St. Theresa's Church on School St. Jan. 6, 1942 — the same church where his family, former patients, and grown kids he had delivered of their mothers over the years, surprised Les with a 70th birthday celebration in December 1985.

Dr. Vasconcellos' WWII career consisted of service with an Ambulance Collecting Company of the 27th Division for most of the four years that followed. On D-day plus 20 minutes, his unit landed on Eniwetak in the Marshall Islands offensive in 1943. From there on, it was island-hopping all the way to the invasion of Saipan, where he found himself side-by-side with his brother Bill, who was in the 4th Marines.

While on R&R in the New Hebrides and about to embark with his unit for the invasion of Okinawa, Les received orders to be rotated back to the States, to Cor-

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valis Naval Hospital in Oregon; this was in April of 1945. The war ended shortly thereafter. From there, it took only a short time before he was transferred back to Hawaii with Madalin and baby Nancy, and mustered out. Madalin had returned to Nebraska while Les was overseas.

Having completed his rotating interneship while on active duty at Tripler early in the war, Capt. MC (AUS) (retired) Vasconcellos was accepted at St. Francis Hospital as the only resident at the then-50-bed hospital on Liliha St.

A year later, Les joined Louis Gaspar, MD, in his office on Queen Emma St. in general practice of medicine, surgery, and obstetrics. This association lasted for seven years. There were several moves thereafter as solo practitioner until Les and Madalin built their own office building at 1488 South King St.

Dr. Vasconcellos retired from active practice after he suffered a severe myocardial infarction in 1975, after 34 years in the saddle. In the 11 years since then, however, he has remained active in other pursuits, principally in rebuilding their beautiful home at the upper end of Kalihi Valley that had been built by famous Honolulu artist Torrey in 1911, which the Vasconcelloses had obtained in 1958, together with its separate gallery of paintings. Three months into their occupancy, a fire destroyed two-thirds of the house but spared the gallery. In the rebuilding of it together, Les and Madalin have become experts.

Les has maintained his interest in sailing to which he was introduced early on by Alvin Majoska, MD. He continues to be a member of the Waikiki Yacht Club and now sails a 29-foot Ranger. He was commodore of the yacht club in 1965.

Les was a member of the original board that started Chaminade College. He is a member of the Kalihi Neighborhood Board No. 16 and he is third vice president of the Kalihi-Palama Council. He is also a member of the Governing Fellows of Santa Clara University. He plays golf and is a member of the Oahu Country Club. Les joined Rotary International in 1961, was president of the Waikiki Rotary in 1969 and district governor (Hawaii) 1974-1975.

Professionally, Les joined HCMS in 1947 and has served on its Board of Governors and as delegate to the HMA. He was a member of the Honolulu Surgical Society and the Honolulu Ob-Gyn Society. He is a charter member of the Hawaii Chapter of the American Cancer Society and helped organize it with Ted Rhea some 30 years ago. He has served as chief-of-staff of St. Francis Hospital.

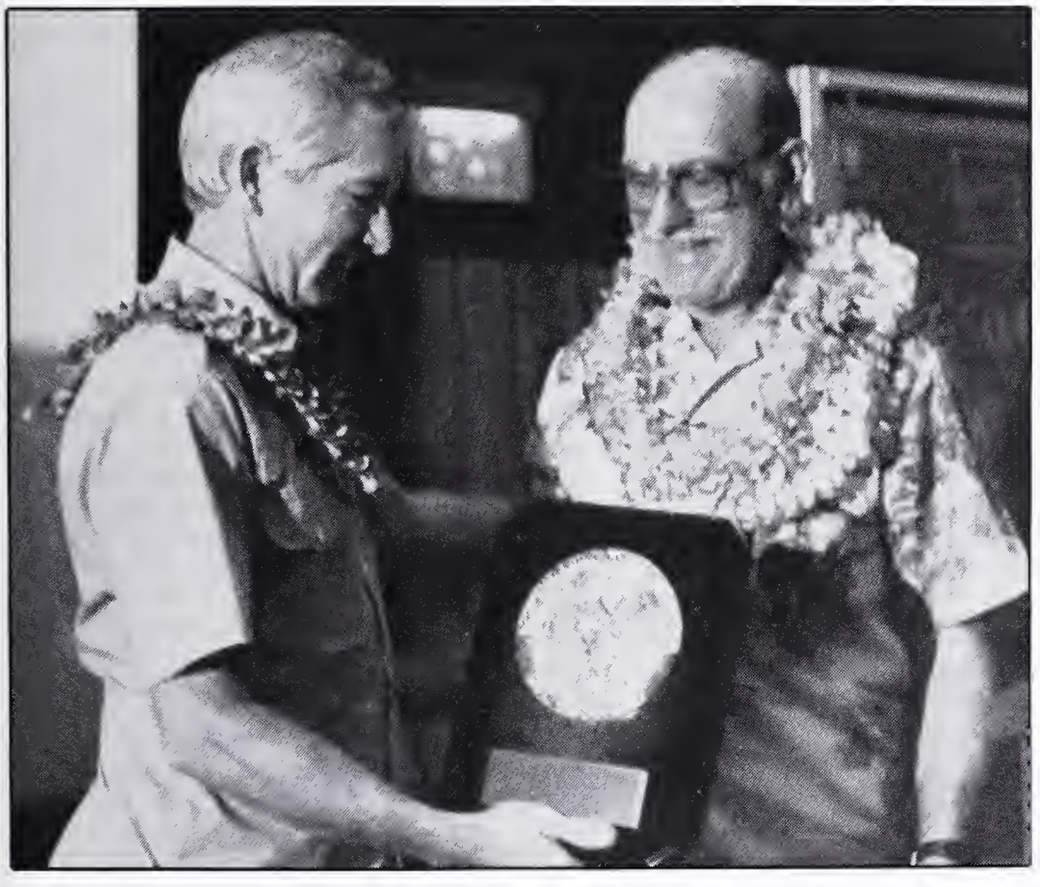
National AAGP — American Academy of General Practice — was founded in 1947. The Hawaii chapter was officially chartered April 2, 1951, with Les Vasconcellos as president. Les presided for three years running, from 1951 through 1953 and is still a member of the Hawaii chapter, now AAFP.

Les was named "Medical Father of the Year" in 1956 by the Honolulu Chamber of Commerce.

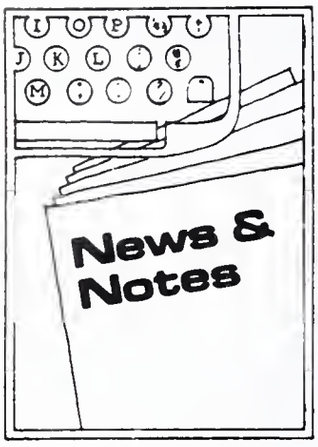
Les and Madalin have five children in the next generation and five-plus in the generation after that. Their eldest is Nancy (Hickok), followed by Leslie Jr., Jerry, Bruce, and Donna (Heimrich). Nancy is the only one who went into the medical field as a speech therapist.

When asked, Les has no regrets about having chosen his career; he has found it very satisfying. He looks at the current practice of medicine from the outside and has observed it as a patient as well: "It seems to be too defensive," he says, "and the young, well-trained doctors starting out in practice don't seem to have the sense of mission that we had in our day — a lot of them, that is to say. They seem to be eight-hour-a-day types."

To quote Bud Smyser writing in the Dec. 10, 1985, issue of the Honolulu Star-Bulletin: "Never once in his long practice was he sued. Today there is almost no finer tribute to a physician, unless it is to have a lot of your ex-patients turn out to surprise you on your 70th birthday."



Russell T. Stodd, MD, presents "Physician of the Year" A. Leslie Vasconcellos, MD, with the HMA award sponsored by the A.H. Robins Co.



HENRY YOKOYAMA, MD

Remarks on Tort Reform

(The following are notes scribbled from a physicians' breakfast session with John Waihee as host at The Wisteria restaurant on July 2.)

"There will be a special session in two weeks. The administration will push a bill on tort reform, but the effort will not be on medical reform, but in the area of a general tort reform. There are two reasons for this: (1) the medical profession has already made an impact at the last legislature; (2) there is need for a general tort reform for the following reasons: (a) the availability of insurance for the medical profession; (b) businesses are in a crisis situation for need of lower insurance costs."

OB Gyn man Donn Tokairin injected: "How about the affordability of malpractice insurance especially in high-risk specialties?"

Replied Waihee: "The parameters are defined by what is on the table. The three areas are:

"1—Unanticipated amount of damages, i.e. large judgments. Our statistics show that there aren't that many large awards. The issue is the unpredictability of the awards. Therefore, 'Caps' are needed to reduce this unpredictability.

"2—Unanticipated cause of action. This is a bigger problem than the first. We must bring predictability to these two areas, i.e. the unanticipated amount of damages and the unanticipated causes of damage.

"3—Cost of actually processing cases. Our statistics show that 35 cents to 50 cents out of each dollar awarded, pay for the cost of defense. Hence, we have to reduce the cost of defense. Other areas such as statute of limitations and frivolous suits are not such vital issues.

"I did suggest to the tort coalition a medical tort reform for humanitarian reasons but all things being equal, this was not a popular proposal. The medical profession has made a much better effort than the businesses. I feel that we can achieve some reform in the medical area in this session and in the general area at the next session."

Re: Patients' compensation fund. "There should be a mandate that everyone joins the fund.

"As a political person, when we begin to talk about general tort reform, we need to correlate the cost of insurance with the cause of liability. Frankly, I would like to see a comprehensive reform."

Fred Reppun remarked, "How about Ralph Nader's remarks? He castigated the insurance companies."

Waihee: "I don't think anyone is entirely to blame and at the same time, no one is not entirely without blame. Liability insurance is the least predictable. We should stabilize the predictability of the situation. Insurance companies are not entirely 'lily white,' but neither are they entirely to blame."

Re: Arbitration panel. "Where the medical panel fits is a little bit tricky. There is the danger of "free discovery" in trying to determine liability. None of these suggestions are panaceas. They are band-aid proposals. It may take care of one problem, i.e. the expense of processing claims, but not the problem of catastrophic awards."

Don Char referred to quality of care and mentioned that pharmaceutical companies manufacturing vaccines are keeping $2 out of every $3 to protect themselves against future law suits.

Waihee: "If quality of care is the aim, we should get out of the litigation system and get into a no-fault situation. Presently, when a person drowns on a beach, the hotel, the county, and the state all get sued."

Re: Insurance companies. "During good times, insurance companies are in, and in bad times they are out."

Fred Reppun commented: "Out-of-court settlements are the worst. One's reputation is at stake and justice is not served, but insurance companies force us to settle in order to save the cost of defense."

Waihee: "If you are interested in long-term solutions, get out of the litigation system, except for extreme cases."

Conference Notes

From visiting UCLA prof Drew Winston's lectures regarding "Infections in Immunosuppressed Patients," June 6:

Re: HTLV-III (AIDS) Risk Evaluation: "Not spread by casual contact."

1—"No risk even with household contacts, e.g. utensils, beds, toilets, showers, even kissing."

2—Health care workers: "No risk even with needle pricks."

☆ ☆ ☆

From visiting professor Thomas Kottke's lecture on "Smoking Cessation Techniques;" QMC-UH Friday morning lecture, June 13:

Re: Life Expectancy: "Quitters have a 200 percent increase in life expectancy. It doesn't help to stop smoking after a heart attack. But on the average, patients who quit after one heart attack live twice as long as those who don't."

Re: Diabetics. "Non-smokers have half the occlusive arterial disease."

Re: Lung Function: "Stopping will slow the danger. Smokers have 60cc loss per year while non-smokers have a 20 cc loss per year. Smoking adversely affects the course of most diseases."

Re: Wrinkles in Women: "Greater in smokers than non-smokers."

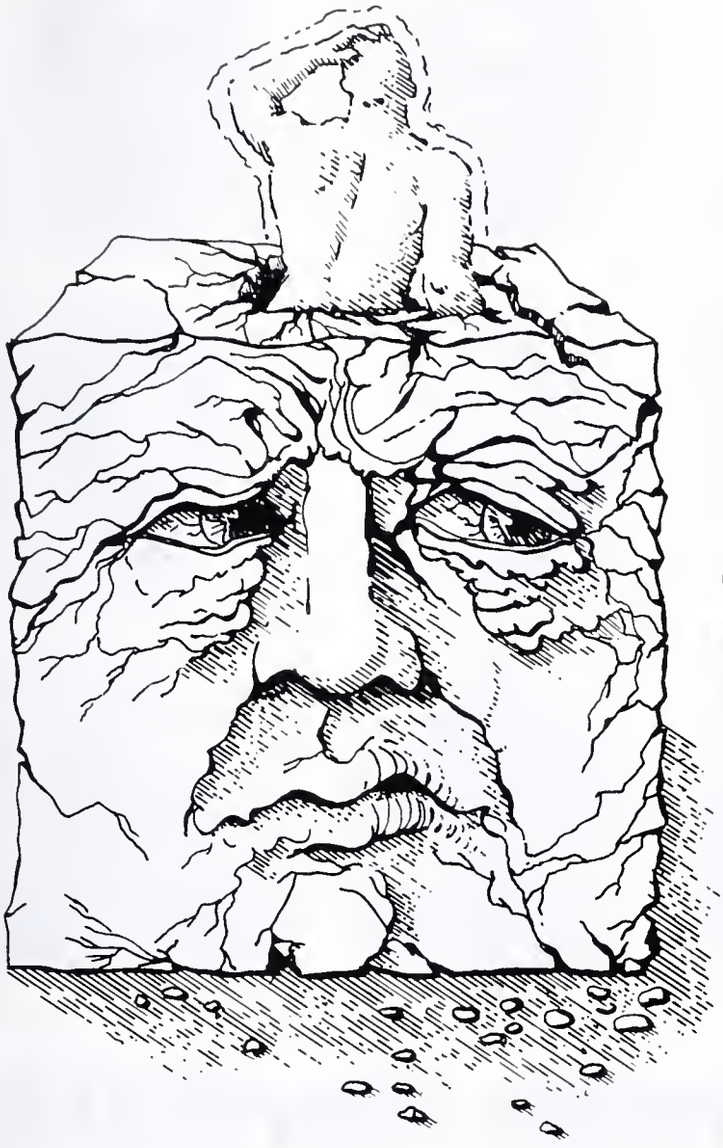
Re: Osteoporosis: "Smoking lowers the estrogen levels."

Re: Lung Cancer in U.S.: "Smoking is as dangerous for women as it is for men. Today, more women die from lung cancer than from breast cancer."

Smoking cessation techniques include: (1) confront patient about smoking; (2) analyze smoking pattern; (3) obtain a consultation; (4) set up a follow-up appointment; (5) reinforce positive actions; (6) expect relapses; and (7) don't give up. (Ed: Only then commit hari kari.)

Oncology Conference

Surgeon Takakazu Fukumura reviewed the case of his patient, a 50-year-old Japanese woman who, when age 4, was 1½ miles from ground Zero in Hiroshima. She had developed a left thyroid nodule that nuclear medicine man Dick Warsnick had scanned and found suspicious. The patient had a total thyroidectomy and pathologist Larry McCarthy described the nodule as adenocarcinoma. Post-op she had hypocalcemia for several days. When moderator Glenn Kokame asked what was planned, Dick was cautious: "We'll wait one to two weeks before ablating with radioiodine so we won't get blamed for her hypocalcemia."



Do you have patients who are in PAIN? . . .

- always complaining?
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- questioning your judgement?
- dependent on medication?
- visiting physicians and healthcare providers frequently?
- alienating family and friends?

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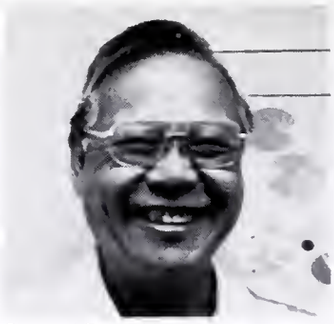
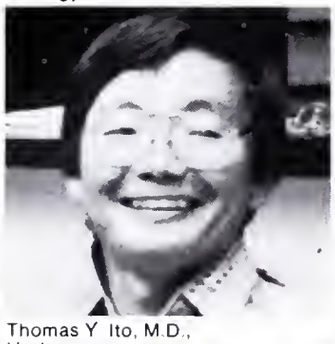
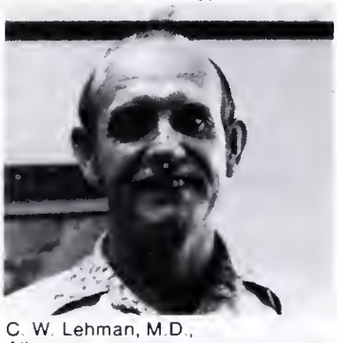


Bernard Fong, M.D.
Cardiology

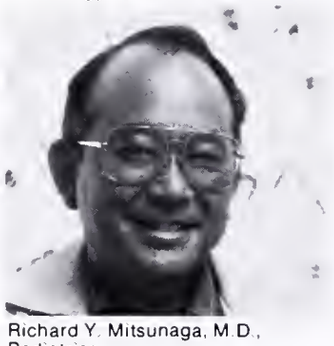
Alvin Furuike, M.D.,
Pulmonology



Thomas Y. Ito, M.D.,
Urology



C. W. Lehman, M.D.,
Allergy



Richard Y. Mitsunaga, M.D.,
Pediatrics

Jeffrey Nakamura, M.D.,
Hematology/Oncology

James E. Oda, M.D.,
Orthopedic Surgery

George Shimomura, M.D.,
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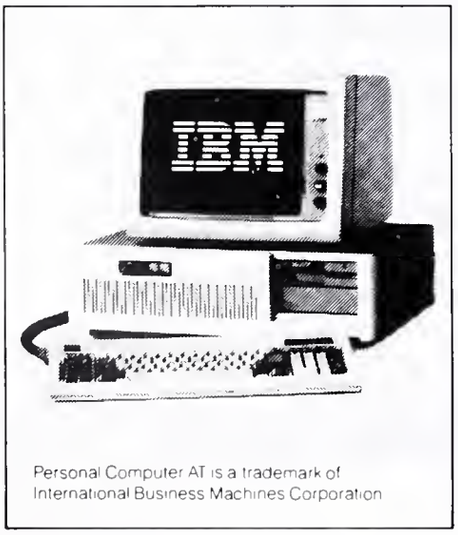
What do these doctors have in common?

- **Efficiency in office management**
- **Control and action in accounts receivable**
- **Fast turnaround on paperless claims**



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A 70-year-old woman had a "cold nodule" detected five years ago. Offered surgery, she elected to have a trial of thyroid supression. She finally decided to have a left thyroid lobectomy, but not a total. Permanent sections showed follicular carcinoma. Warsnick suggested: "We can ablate with nuclear med, but it would take too long."

Radiotherapist Ed Quinlan declared: "Radiation has no place in this case."

Moderator Glenn Kokame was unhappy. "We've had two cases of malpractice in Hawaii for delayed diagnosis," Glenn said. "And we lost."

Pathologist Grant Stemmerman asked, "What's the role of TG thyroglobulin?"

Dick replied, "Diagnostically, it has no role, but it is useful in follow-up."

Elected, Appointed and Honored

The Hawaii Society of Otolarngology & Head & Neck Surgery elected Roland Tam president, Raymond Foder secretary, and Larry Zieske treasurer.

Fraud Until Proven Otherwise

(A patient had sustained a laceration of her left upper eyelid, contusion-ecchymotic areas of her left supraorbital ridge, left maxilla, and right zygoma, dizziness, headaches, nausea, etc., when the insured drove his car against our patient's open car door as she was getting out.)

We received the following letter from the senior claims representative, Honolulu Service Office, Transamerica Insurance Group:

"We would like to verify that you prescribed the following medication to claimant,

_____ :

Ananase #20
Dolene #24

"We also received your itemized bill and would like to know whether all visits were directly related to the above auto accident and/or whether they may have been related to her recent hospitalization. (Ed: Patient was hospitalized for one day a month after the case had been closed, for a ruptured ovarian cyst.) In addition, why was it necessary for xxxx to undergo a urinalysis and why twice? How is this test related to the above accident? (Ed: Patient had 3-plus albuminuria which subsided somewhat on repeat urinalysis).

"Once we receive your answer to this letter and also the completed Attending Physician's Report, we will determine what charges, if any, are coverable.

"Very truly yours,

_____ ,,

(Ed: Over the years we have received innumerable such insulting, hostile, overbearing letters from claims adjusters. Our first reaction is to shout "Shove it!" and tear up the letter, but then if we don't, we won't get compensated and we have dozens of unpaid claims. We are convinced that claims adjusters must go through some intensive course on how to antagonize everyone. Of course, they must first be born with a suspicious, arrogant personality to even qualify for the job . . . or was it a learned trait?)

Miscellany

The naive young man thought he had found his ideal woman. viz: An aristocrat in the living room; an economist in the kitchen and a harlot in the bedroom. But to his dismay once they were married, she turned out to be a harlot in the living room, an aristocrat in the kitchen and an economist in the bedroom.

Talented

Alphonso Faustino enters Japanese popular song contests and wins awards. Yoshiki Ushiyama sings, plays the shamisen, and has been the official drummer for the Fukushima Bon Dance festivals the past three years. Golfer Neil Shibuya is a singing virtuoso after he has had a few.

Living Will

We received the following "Declaration of Medical Treatment" from our patient, a fledgling, competent, woman lawyer whom we hadn't seen for several years, and called her forthwith to make certain she wasn't planning anything drastic. She laughed and reassured us that she was fine and that she just wanted us to keep the document in her medical record. It read as follows:

"This Declaration is made this xxxx day of xxxx, 1986. I, xxxx xxxx xxxx, being of sound mind, willfully and voluntarily make known my desire that dying shall not be artificially prolonged under the circumstances set forth below, and do hereby declare:

"1. If at any time I should have an incurable or irreversible condition certified to be terminal by two physicians who have personally examined me, one of whom shall be my attending physician, and the physicians and one member of my family have determined that I am unable to make decisions concerning my medical treatment, and that without further administration of life-sustaining treatment my death will occur in a relatively short time, and where the application of life-sustaining procedures would serve only to prolong artificially the dying process, I direct that such procedures be withheld or withdrawn, and that I be permitted to die naturally with only the administration of medication, nourishment, or fluids or the performance of any medical procedure deemed necessary to provide me with comfort or to alleviate pain.

"2. In the absence of my ability to give directions regarding the use of such life-sustaining procedures, it is my intention that this Declaration shall be honored by my family and physician(s) as the final expressions of my legal right to refuse medical or surgical treatment and accept the consequences from such refusal. "I understand the full import of this declaration and I am emotionally and mentally competent to make this Declaration.

s/ _____

"STATEMENT OF WITNESS

"We are at least 18 years of age and not related to the declarant by blood, marriage, or adoption; and not the attending physician, an employee of the attending physician, or an employee of the medical care facility in which the declarant is a patient.

"The declarant is personally known to us and we believe the declarant to be sound of mind.

Witness: _____

Address: _____

Witness: _____

Address: _____

Subscribed, sworn to and acknowledged before me to xxxx xxxx xxxx, the declarant, and subscribed and sworn to before me by xxxx xxxx and xxxx xxxx, witnesses, this xxxx day of xxxx, 1986.

_____

Notary Public, State of Hawaii"

(Ed: We were impressed with the thoroughness and completeness of the document)

KILLER CELL

(Continued from page 398)

responded as well to IFN therapy, Herberman[7] has proposed that patient's NK cells be activated *in vitro* to proliferate with interleukin-2 and reinfused into patients. These activated killer cells would then kill tumor cells. Rosenberg et al.[18] has recently reported tumor regression in 11 out of 25 patients receiving adoptive immunotherapy with lymphokine activated killer (LAK) cells in addition to treatment with r-Il-2.

Our Hawaii-BRM research laboratory has initiated *in vitro* studies with r-Il-2 in order to provide this adoptive immunotherapy to cancer patients in Hawaii. Our *in vitro* activation of patients PBM with R-IL-2 has shown that NK cells and other effector cells are activated to kill more effectively NK-sensitive as well as NK-resistant tumor targets (unpublished observations). Continued studies with IFN, IL-2 or other newly developed Biological Response Modifiers should be continued in selected cancer patients with limited tumor burden or minimal disease where therapeutic efficacy is more likely as adjuvant or combination therapy.[10]

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Over the Editor's Desk

CHAMPUS WILL NOT PAY FOR PRESCRIPTIONS WRITTEN BY PHARMACISTS—A new Florida law, which was effective May 1, 1986, allows pharmacists in that state to write prescriptions in limited instances. CHAMPUS officials want health care providers to know that CHAMPUS will *not* share the cost of prescription drugs prescribed by pharmacists.

Prescription drugs are covered by CHAMPUS as they have been in the past. And as in the past, the prescriptions must be written by a physician.

NEW CANCER CENTER FUNDED FROM FLORIDA'S CIGARETTE TAX. Science and Industry, Vol. 10, No. 6—A $54 million cancer and research center has been constructed in Florida, using funding from the state's cigarette tax. The center combines medical expertise and technology to combat the state's high incidence of cancer statistics. Florida leads the nation in cancer incidence and mortality, with almost 50,000 cases a year and 25,000 annual deaths from the disease.

(Continued on page 411)

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EDITOR'S DESK

(Continued from page 408)

O'LEARY REVEALS JOINT COMMISSION STRATEGY FOR QUALITY IN HEALTH CARE. Joint Commission on Accreditation of Hospitals, Chicago, Sept. 1—Dr. Dennis O'Leary, the new president of the Joint Commission, has unveiled a major campaign to evaluate the quality of health care services. O'Leary's plans call for the inclusion of clinical outcome measurements in the processes used by the Joint Commission to survey and accredit health care organizations.

The Joint Commission will begin using measurements of clinical outcomes as indicators of quality in the accreditation process in 1987.

"America's health care leaders are increasingly talking about quality," O'Leary said. "But many still suggest that it defies attempts to define it and measure it. We are convinced it can be defined and can be effectively measured. It's time to stop talking and start moving."

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EYE SPECIALISTS FIGHT GLAUCOMA AMONG OLDER HAWAII RESIDENTS. From the American Academy of Ophthalmologly News of Eye Care—At least six elderly Hawaii residents might have gone blind from undetected glaucoma if they had not called 1-800-222-EYES, the number to a public service that offers medical eye care to the disadvantaged elderly at no out-of-pocket cost.

The National Eye Care Project, which operates nationwide through a toll-free helpline, opened in Hawaii June 23. It has received more than 217 calls from seniors in Hawaii who may be suffering from glaucoma and other sight-threatening eye diseases. More than 139 of these callers have made appointments with volunteer physicians and have received treatment, including the six who were found to have glaucoma. The project is sponsored locally by the Hawaii Ophthalmological Society and Foundation of the American Academy of Othphalmology.

CLASS OF 1986 BRINGS TOTAL MDs TO 761 SINCE 1975. "Pacific MD," John A. Burns School of Medicine, University of Hawaii, June 1986.—Fifty-six men and women received their MD degrees from the university in May under an admonition from Dean Terrence A. Rogers to, above all, enjoy their work without regard to coming changes in the organization of medicine. The 1986 graduating class brought the total of physicians graduated from the four-year school to 761. Counting the 131 graduates from the then two-year program from 1967 through 1973, the medical school has since produced 892 physicians. Ordinarily, about 40 percent of each class stays in Hawaii for specialty training while 60 percent goes to the Mainland. But this year, it's the opposite, with 60 percent remaining in Hawaii. Of the 56 graduates, 33 — or 59 percent — are signed up for Hawaii programs. The breakdown of specialties is about as usual: family practice, three; internal medicine, 21; primary care, three; ob/gyn, five; pediatrics, six; psychiatry, two; surgery, three; preliminary surgery, seven; and transitional, three.

ZILACTIN RELIEVES HERPES SUFFERING. A new topical medication, Zilactin, has been patented and introduced to the pharmaceutical market. Zilactin is a highly effective, nonprescription symptomatic treatment for Herpes Simplex Virus I (HSV I — fever blister, cold sore infections) and canker sores. The active ingredient in Zilactin is tannic acid. Although tannic acid has been used before to relieve herpes symptoms, it is the *exact combination* of tannic acid and the vehicle that contains salicylic acid, boric acid, propylene glycol, methylcellulose, deionized water, and alcohol that makes the medication so effective. Zilactin is manufactured by Zila Pharmaceuticals, 777 E. Thomas Rd., Phoenix, Ariz.

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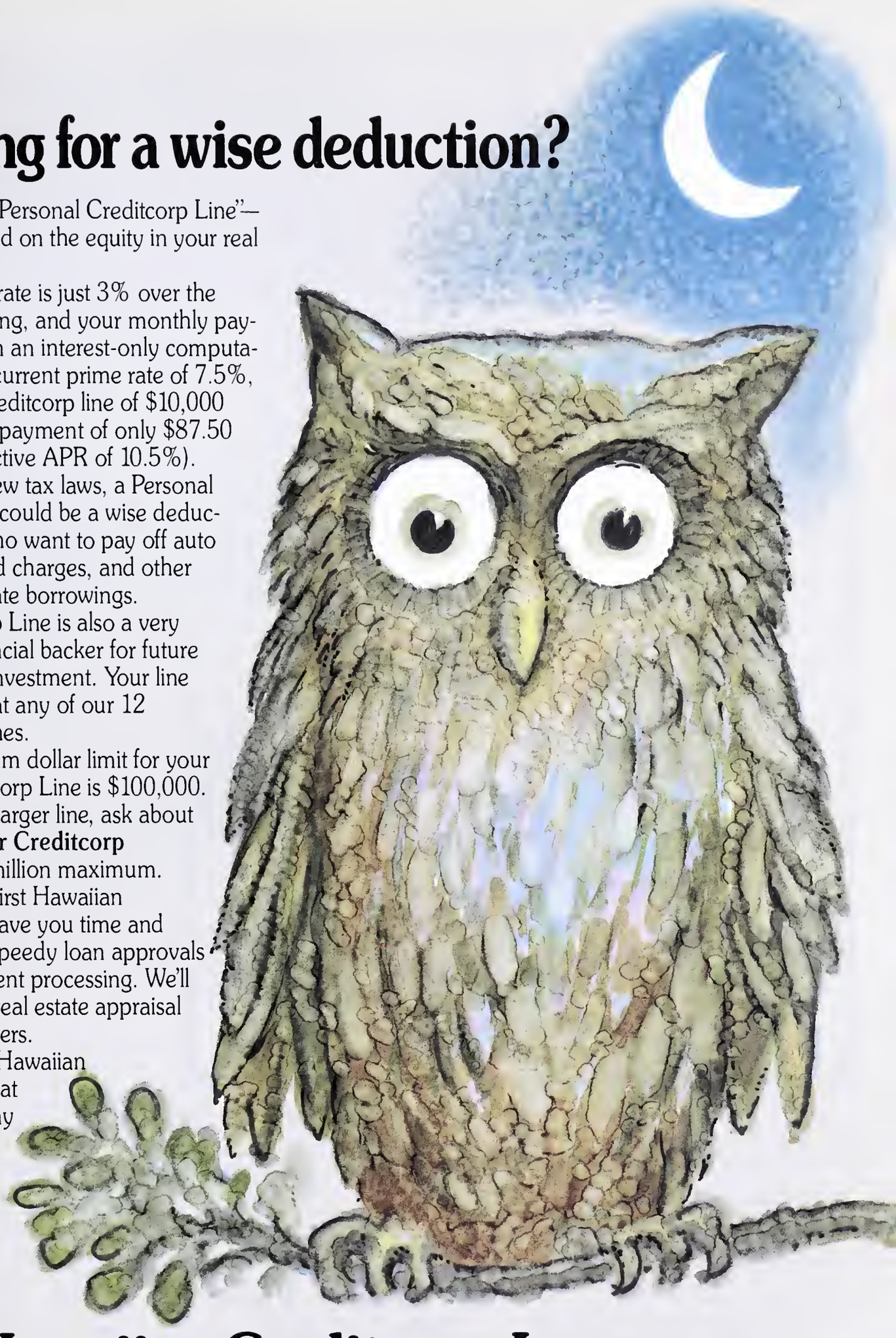

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INFLUENZA

(Continued from page 388)

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NOTE ADDED IN PROOF

On 15 August 1986 the Centers for Disease Control reported cross-hemagglutination inhibition data on newly isolated H1N1 strains that show marked antigenic differences from H1N1 strains prevalent from 1978-1985 *(Morbidity Mortality Weekly Rep,* 1986; 35:510-2). These data raise the possibility that new H1N1 strains may gain a foothold in the U.S. as early as this year, there being no assurance that current vaccines will prevent infection. Accordingly, a monovalent vaccine against the new H1N1 virus (A/Taiwan/1/86) is being rushed into production for distribution by late 1986. The preliminary recommendations of ACIP are unchanged from those previously issued *(vide supra)* with the following single exception: persons under 35 years old for whom influenza vaccination has been specifically recommended (i.e., persons 'at risk'), should receive both the trivalent and the monovalent vaccine. If given at the same time, separate injection sites should be selected.

In a recent development, the first U.S. isolates of the new H1N1 virus were reported by the Hawaii Department of Health in October, 1986. Because of the many uncertainties, after careful consideration the Hawaii Department of Health has elected to go beyond the recommendations of ACIP, specifying that at-risk persons of all ages receive both the standard (trivalent) and the new (monovalent H1N1) vaccines, prioritizing risk groups by age. Those at-risk persons under 35, who as a group have a lower H1N1 seroprevalence rate, are placed in the highest priority group, while at-risk persons over 35 are placed in a lower priority group. It should be emphasized, however, that the current trivalent vaccine is and will be the mainstay of influenza prevention in the 1986 season. In no case should vaccination be delayed in anticipation of the availability of the monovalent vaccine, or further information about influenza circulation in Hawaii.

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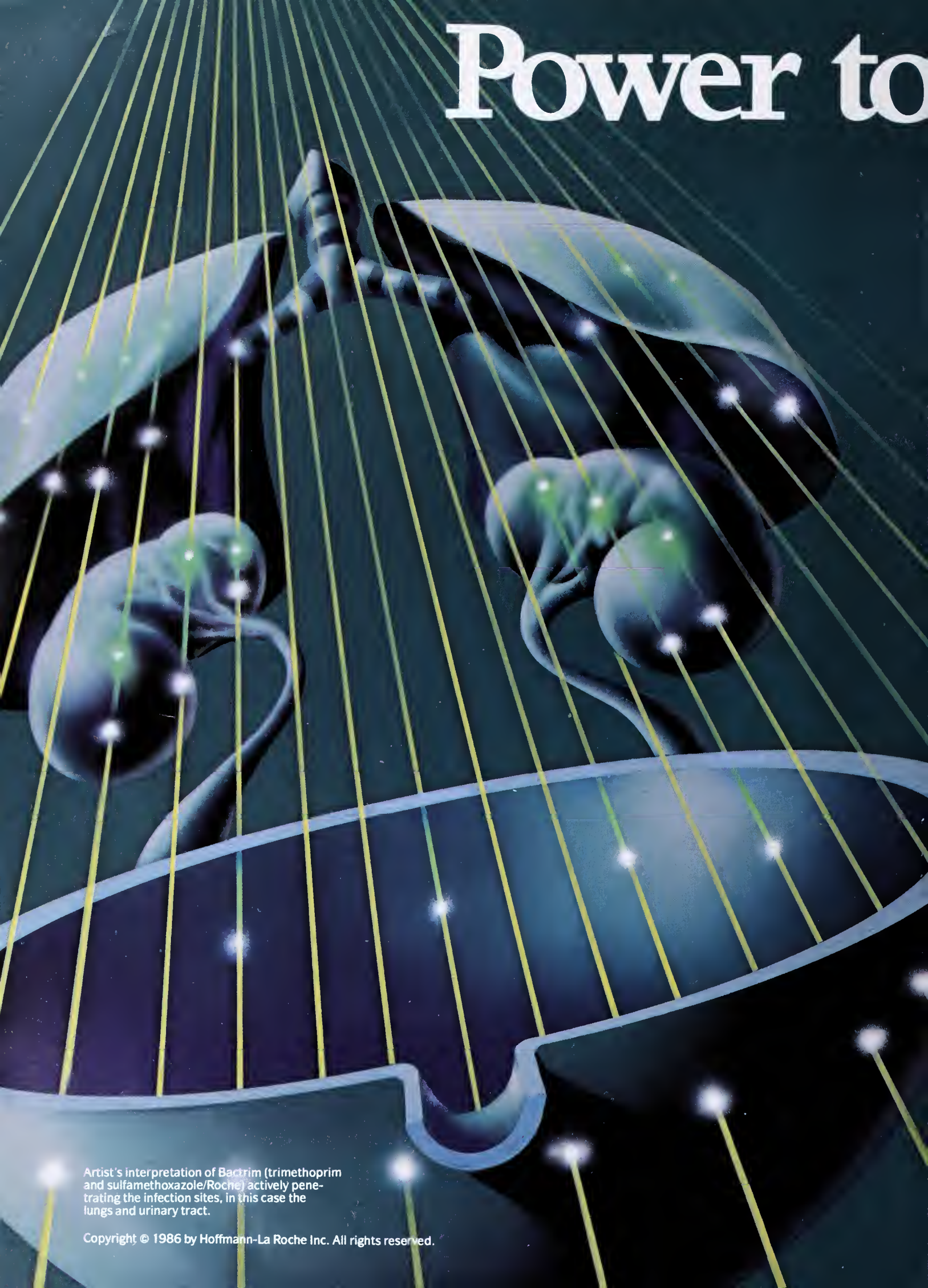

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References: 1. Rubin RH, Swartz MN: *N Engl J Med 303*:426-432, Aug 21, 1980. 2. Stamey TA, Condy M: *J Infect Dis 131*:261-266, Mar 1975. 3. BAC-DATA Medical Information Systems, Inc., Volume II, 1985. 4. Data on file, Hoffmann-La Roche Inc., Nutley, NJ.

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FROM THE PRESIDENT

Physicians, like all human beings, are diverse. A polyglot of differing creeds, sexes, religious ideals and beliefs. Our Hawaii Medical Association is thus structured — reflecting varying views and ages, attitudes, and *organizations.* However, the association cannot be subjected constantly to the "whims and fancies" of certain favored individuals, groups, organizations.

We need to act and work for the "common good" of the association. Toward that end, your association will undertake broader issues as smoking, AIDS, child abuse, tort reform, medical practice act, aging, etc. Controversial subjects can be undertaken but in the context of the broadened scope.

Walter W.Y. Chang, MD
President

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Annual Report of the Editor

The second year of this editorship has flown by inexorably with a publication deadline each month. Were it not for the assistance and hard work of the HMA staff — primarily that of Jennilyn Etrata — the job of being both editor-in-chief and managing editor would be overwhelming for a physician still in active medical practice.

The coming aboard of Charlotte Beal as HMA's Communications Director has given the JOURNAL a boost. Her interest as a journalist in what goes into each issue and in the decision-making process and her penchant for looking at its proper "professional appearance" have contributed greatly to its apparent success so far.

Members may or may not have noticed that we have tried various versions of format and are gradually settling on a style. Also, the editorial (non-ad) pages have become more full with less margins and less "white" space; the latter are glamorous but expensive in this day and age. We solicit comment from members/readers as to what they think of this. Incidentally, it appears that JAMA, beginning with its July 4 issue, has inadvertently followed HMJ's lead in this respect.

The association with our publisher, Crossroads Press Inc., continues to be a very good one. Steve Lent and his staff have been cooperative and helpful in their dealings with our vagaries.

The HMA Publications Committee under Chairman Henry Yokoyama has been very supportive.

The participation of HMA members — and others — in the submission of articles for publication, medical, medico-socio-economic, etc., together with the letters-to-the-editor (LTTE), the perennial "News & Notes" by Henry Yokoyama that provides most of the spice, the special columns, book reviews and occasional comments have been much appreciated.

In general, the JOURNAL appears to reflect the activities of a virile and active medical association, which is as it should be. Afterall, the association's medium of communication's intrinsic purpose should be, in addition to disseminating useful medical scientific knowledge that is of particular local interest, to further internal dialogue.

J.I. Frederick Reppun, MD
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Editorials

Cut the Cost of Immunizations!

The state Health Department's Communicable Disease Report — the June "Green Sheet" that is no longer green — gives the annual statistics for 1985.

Noteworthy are the data on the *Vaccine-preventable Diseases:*

- **Measles**—of the 31 cases reported, 21 were of indigenous origin, all from Oahu; the other cases were "imported," nine from foreign countries and one from the Mainland.
- **Rubella**—the 45 cases were considered to be "a significant increase over the average of nine per annum since the 1977 epidemic." All but three of the cases occurred among adults ages 22 to 54, indicating that rubella has become primarily a disease of adults, thanks to the success of vaccinations. Prior to such prevention, the case load was 3,345, e.g., in 1965!
- **Pertussis**—which the lay public is generally unaware of as "Whooping Cough" — had a reported incidence of 24, of which 17 occurred in children under 5 years of age and 10 of these were less than a year old. Six children had to be hospitalized.
- **Mumps**—19 cases.
- **Tetanus**—only two cases, one in a young adult from the Philippines who had been inadequately immunized, the other in a 67-year-old Oahu resident who died of it; there was no record of his ever having been immunized against tetanus.
- **Polio** and **Diphtheria**—no reported cases.

In the context of the above, let us consider the costs of immunization. From the most recent experience in a private office, **DPT vaccine** costs $171 for a 7.5 ml vial or 15 doses of 0.5 ml each. This comes out to $11.40 per dose. That physician's office added an administration charge that is probably on a very low side, of around $4, which brings the cost to the child's family of a DPT series of three to $45 and a preschool booster to $15.

TDa vaccine, which is generally given as a booster after the preschool years, costs $10.16 for a 5 ml vial or 10 doses; the huge difference by eliminating the Pertussis component reflects the cost to the manufacturer of liability insurance the result of suits and astronomical awards for reactions ascribed to Pertussis. Does this mean we risk the morbidity and relatively high mortality incident to whooping cough because of the high cost of the vaccine that parents may refuse to allow to be given, even though the law says it must be?

MMR vaccine — this might as well be given as a routine combination against measles, mumps, and rubella in one shot, if for no other reason than to save the poor kid's integument, plus the costs of separate immunizations. A box of 10s, individual dose units, costs $166.65, or $16.67 per dose. Add the administration charge as above and it comes out to around $20 at best. However, only one dose is required for lifetime protection (so far).

Polio — Sabin oral 3 — costs $95.28 for a box of 10s, individual doses, or $9.54 per dose. At $12 each, times three the first year of life, this comes to $36.

A preschool requirement of boosters DPT and polio thus costs the parent $27 and does not include the required Form 14 physical cost to boot.

Since vaccination/prevention is truly so important for the well-being of children the world over, should not the global society of man figure out some way to spread the cost over the 5 billion people in the world, rather than saddle the young families individually with it? How about trading off a few nuclear missiles or bombers?

J.I. Frederick Reppun, MD
Editor

HMWA Offers Support

In a profession that has been traditionally male-oriented, it is encouraging to note that more women are becoming physicians. Nearly one-fourth of the practicing physicians in Hawaii are women and we are especially pleased that HAWAII MEDICAL JOURNAL recognizes and dedicates this issue of HMJ to "Women in Medicine."

Readers might like to know that the Hawaii Medical Women's Association began in 1981 and is dedicated to the general support of women physicians, the education of our membership, and in a variety of scientific, personal development, and community matters. The present membership represents a good cross section of medical specialties and subspecialties. HMWA meetings are generally presented on the fourth Friday of the month at the Pacific Club.

For the past two years, HMWA co-organized and sponsored communications workshops for professional women along with Hawaii Women Lawyers, Network of Marketing Women, Women in Communications, Women Accountants, Bank Women, and the Hawaii State Council. We plan to make this an annual event.

Our interests include an active involvement in working in already-organized medical associations, in governmental agencies, and the community at large. HMWA is actively recruiting women whose interests and concerns parallel or complement ours.

We would be delighted to interface with and receive input from persons or organizations similarly interested. Anyone who wishes additional information may contact me.

Adrienne Wing, MD
President
Hawaii Medical Women's Association

About Women in Medicine

On Jan. 25, 1986, the Hawaii Chapter of the American College of Physicians sponsored a meeting titled "The Woman Internist: Issues and Conflicts." The goal of this workshop was to provide an environment where women physicians could discuss issues and concerns that related to their role as women professionals in our society, and to respond to several preselected themes considered by colleagues in the community.

"Patient-care issues" were addressed by Drs. Patricia Blanchette, Daphne Myers, and Mary Ann Antonelli. Dr. Jing Hsu, a psychiatrist, discussed "Playing By His Rules." Dr. Gladys Fryer gave a personal assessment of "Career Choices and Tensions." Finally, Dr. Linda Hawes Clever, the only woman governor of the American College of Physicians (for the Northern California Region), talked about the "Superwoman Syndrome."

The impressions, concerns, anxieties, and perceptions of women physicians are of exceptional importance to all of us, and, of course, to their patients. The intensity of feeling and eloquence of thought that pervaded this exercise were moving and provocative. What follows is a synthesis of their remarks. I hope that the sense of intellectual stimulation that was felt at the meeting will be transmitted by these papers.

—Irwin J. Schatz, MD, FACP
Governor

I. Women in Medicine: Patient Care Issues

Patricia Lanoie Blanchette, MD, MPH*

(First in six-part series)

Patient Care Issues

When I was first invited to address "patient care issues" concerning "Women in Medicine," I was at a loss because I couldn't think of any. My women-physician colleagues who started practice as recently as 10 years ago have thought of quite a few. However, things are different now. The entry battles have been won; many of the "firsts" for women have happened. Those of us who are women in medicine today owe a great deal to the pioneering efforts of a number of strong and dedicated women who have come before us, as well as to men, such as our own medical school dean, who thinks women belong in medicine. We now take our places in medical school, residency programs, and in practice without undue notice taken of our female sex.

Most of us think of ourselves as "physicians," not "women physicians." My field, Geriatric Medicine, is heavily male-dominated in the U.S. as a whole. But, in Hawaii, no one is saying to me, "You're the first woman geriatrician we've had." Although educated prior to the advent of fellowship training in geriatrics, at least three fine women physicians in Hawaii have limited their practice to the care of the elderly for the appropriateness of women for this subspecialty.

Regarding individual patient care issues, I can't remember the last time someone said to me, "You're the first woman doctor I've ever had." I heard this often four or five years ago, but not now. No male patient has ever refused my exam. Some patients, men and women, will make comments such as, "Women physicians are more gentle, you didn't hurt me."

We are seeing patients seek out women physicians preferentially in some cases. An example is found in Blackwell Medical Associates, a group of women internists and subspecialty physicians in Boston. They make it clear to patients that their practice is structured in such a way to permit them more time with their families and time off for childbearing. Even in a "heavily doctored" city, they became very busy very quickly and almost forgot why they are established. They had to rethink their practice and set limits for themselves. Apparently, both men and women patients like the idea of physicians who make no bones about the fact that family life was important.

The major patient care issues left for us to address are the global ones. We are accepted now as practitioners in medicine, but only rarely are we in leadership positions. We seldom have the authority to make decisions involving the structure and direction of our institutions, the overall practice of medicine, health care financing, and medical education. All of these have major impact on patient care.

The scarcity of women physicians in leadership roles is puzzling. Although it takes a long time to climb administrative ladders, there have been excellent women physicians for a years or more. Given their determination against the odds they faced, you'd think that more than a few would have made it to department chair, medical school dean, or chief administrator levels. Yet, it is the rare exception whose names comes to mind in this context.

Accusing male physicians of a conspiracy to keep women out of administrative ranks is ridiculous. I find it difficult to believe that there could be this much consensus and unanimity of action. At least part of the the answer lies in our own motivations, priorities, and socialization as women. Not many women physicians are primarily motivated by money or personal ambition. Women in medicine seem to retain more of the altruism that most male and female first-year medical students share. We would be less likely to make decisions based on money or personal ambition at the expense of other issues, such as optimum patient care, a program we care about, our families, or a challenging and satisfying work environment.

Concerning our socialization, most women do not tolerate dissonance or conflict very well, nor are we socialized as risk-takers. Young boys are encouraged to take on challenges, are put in conflict situations, taught to "Fight! Fight! Fight!" and to win. We are taught to be nurturers, supporters, and cheerleaders, avoiding conflict and making everyone more comfortable. We are the team players, not the stars.

This was pointed out to me quite clearly recently, when I found myself involved in a serious disagreement about the direction and leadership of a program that I care about very much. A senior male faculty member was advising me. At one particularly difficult time, I said, "I hate conflict," whereupon he answered, "I love conflict! It gets issues out into the open and gets things done." I was struck by his relish of a situation that was causing me only unhappiness and turmoil. This was his environment, not mine. The only things missing were the goal posts.

I can and will learn, but it will go against the grain all the way. We need to learn to handle conflict, to use its positive side, to take risks and to do so with enthusiasm. Our daughters and female students must be less admonished to be "nice" than we were. We will find ourselves in leadership roles, with the authority to decide on patient care issuse.

Do we need to "feminize" our institutions; do we need to "masculinize" ourselves? Betty Friedan, with whom I was lucky enough to spend a few days, makes a plea in her book, "The Second Stage," for us to "feminize" our institutions so that they become more humane for everyone. Now that we have broken through the biological and psychological barriers that previously excluded us, we must develop those personal qualities that lead to top jobs, and then must get to work changing our schools and corporations. But, we must retain our special qualities as women. She has been criticized for this concept by men and women alike. Some people feel that Betty has abandoned the "women's movement," that we have not come far enough, we cannot be let down, we must become like the men

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who are in charge if we are to succeed.

I believe that women can and must retain the qualities that allow for nurturing, supporting, and team building, and also acquire the other skils that allow for effective leadership. We must not become men in skirts. Rather, we should abandon the concept of nurturing being feminine and winning being masculine.

The "women's movement" is quieter now. There is less visible turbulence. But, something is going on. There are smoldering feelings not unlike the '50s when many women were leading lives of quiet desperation. Despite the popularity of "Father Knows Best" and "Ozzie and Harriet," most families were just not structured that way. Many women were working and couldn't measure up to that ideal housewife, frilly apron, perfect mother, cookie baker image. Those who did couldn't imagine why their lives felt so empty; they alone must be at fault. After all, they had everything, a house in the suburbs, and a nine-passenger station wagon. They were marrying at younger and younger ages; after all, wasn't that all women were made for? It took the expression of these feelings in Betty's book, "The Feminine Mystique," for these emotions to explode into a collective anger and unify into an intense, and radical political action. The National Organization for Women, NOW, was founded on the back of a dinner napkin and grew more rapidly than anyone had imagined.

Despite the feelings that now exist, I don't think we will see a second large identifiable women's movement. The actions needed to make changes are more difficult, less easily united, and more tedious to get through. The "second stage" will arrive, but we'll get there more quietly. We still face discrimination, but it is far more subtle, and to some extent still comes from within.

The only barriers we cannot overcome are those that we place in front of ourselves. We are not quite sure that we wish to succeed. We are not quite sure of definition of success. Personal ambition does not come easily. Is that really what we want? No one is going to take them. In getting there, we will be going against the grain. What do we have to give up? Is it worth it?

II. Patient Care Issues

Daphne Myers, MD, ACP Member*

(Second in a six-part series)

When I was initially approached to help with this conference, I said I was not a good one to do this as I didn't perceive a problem — I didn't feel discriminated against and was happy with what I was doing. The reply was, "Fine, let's explore and see if others are in the same position. If there is no problem, further meetings will not be needed."

What I found out in preparing for this meeting was that the issues facing all of us as women physicians are the same. We need to decide what we want to do with our careers: Are we interested in just patient care for the satisfaction it gives or are we out to maximize our interactions and income, and do we care about advancing to the upper echelons of administration and policy making? This conference made me look at my own goals and made me try to analyze why they are what they are. I rethought my position and put things in perspective.

To begin with women appear to enter medicine for different motives than men. The main reasons elicited in one study were: (1) encouragement and stimulation from others, (2) long-term interest in medicine and science, (3) the desire to be independent, and (4) the desire to help others.

Men, on the other hand, had selected medicine for: (1) prestige and status, followed by (2) altruism, and (3) long-term interest in medicine and science. Financial gains were ranked low by women.

Women generally earn less than their male counterparts. This appears to multifactorial: (1) They work fewer hours, (2) see fewer patients, and (3) are in lower-playing specialties. I'd like to comment on a few of these.

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A number of women work part time. This may be due to practice situations available, or family commitments.

It has been said women physicians spend three minutes more per patient visit than their male counterparts. We surveyed 21 practicing women physicians in this community: All felt they spent more time with their patients than do their male peers.

Why do we do this? The overwhelming response to this question was because we're good listeners, and because there was a desire to explain things clearly, to be sure patients understood diagnoses and instructions and to let patients question more. Other honest answers were "because we talk more," "we're inefficient," "we're less rigid in our businesses," "we get satisfaction doing it," and "we're more concerned about the patient in general."

These answers, I think, largely reflect a woman's socialization — the process whereby a person acquires sensitivity to social stimuli and learns to get along with and behave like others in her group or culture. Traditional socialization for women has been to make them wives, mothers, and homemakers. Women are trained psychologically to be on 24-hour call for their families, to perform mental health functions for their families, to take care of everybody, to be sensitive to nonverbal clues; i.e., we're trained to nurture people. Women have been socialized to be more aware, more empathetic.

This obviously affects the productivity of our practices and contributes to our lower income. One of the articles given out showed that just four hours fewer in a workweek could result in $33,000 less income per year. Fortunately, at least at present we are doing this — spending more time with our patients — by choice, and the financial ramifications are not primary. Will this always be so?

Another question asked concerned our being selected by any particular group of patients. Most respondents said no, but some noted they had more women than men patients in their practices. With the graying of America this implies more older women. A number also noted colleagues more often refer "interesting cases" to them because "you'll spend more time."

An interesting side question asked was whether the respondent would consider capitating, or limiting the number of welfare and/or Medicare patients seen. The predominant response was, "No. Someone has to see them."

I think this trend, if it continues, will ultimately have an impact on our practices to a much greater extent than currently

imagined.

The final point from our survey, that I'd like to discuss, relates to our "novelty" in the clinical world. Interestingly, the older women physicians (those completing medical training and starting practice before 1977) commented that about 50 percent of their patients had not seen a woman physician before. I think the time is definitely near when "women physicians" will simply be "doctors" who happen to be women.

Lastly, though maybe somewhat out of place, is the concept of a career physician having to meet the male's concept of total dedication, commitment and, overwork. It has been stressed that we must accept the "special privileges of being a physician." I think that's a lot of bunk. We have the privilege of caring and nurturing our patients and ourselves as best fits us. There is no one best method of practice or interactional style. As long as one has chosen for oneself a style of practice, it is fine. No one is going to make me feel guilty for enjoying my practice, for not overdoing and for enjoying life. Each of us has something to contribute. No one should insist the contribution be the same for each of us.

The problems for women in medicine today are not "getting in" — we're in. The challenge today is to identify and eliminate barriers to women advancing to power positions in medicine, if that is what we want to do.

III. Patient Care Issues

Mary Ann Antonelli, MD, ACP Member*

(Third in a six-part series)

The results of an informal survey of woman internists and dermatologists on Oahu do not have statistical significance, but serve to reflect some of the issues that concern women physicians. In all, 21 physicians were contacted, and responded. The obvious comparison survey of "matched" male practitioners has not been done. (I was singularly impressed that, despite calls during office hours, these physicians were happy to spend more than the necessary time discussing these issues; this fact in itself, may identify a need for the practicing woman internist!)

1—Violence.

A growing concern about increasing personal violence prompted the need to include this subject in our questionnaire. When asked if they had ever been threatened or actually assaulted in their practices, over one-third of the women physicians answered yes. Two physicians felt threatened by patients who were demanding controlled substances, but no violent acts were committed, and the situation was "defused." When asked if violence was a worry so that it would alter their delivery of care, greater than 50 percent of the respondents said that they would not see males, or patients they didn't know, when in their offices alone, or after hours. One physician commented that this threat of violence was one of the reasons she didn't accept Medicaid patients, since they were more "likely to exhibit desperate drug-seeking behavior"!

As a result of this survey, the question arose as to whether our male counterparts are as restrictive in their patient care, and whether this restriction in services accounted for some of the observed differences in hours per week that woman physicians see patients, as compared to male physicians.

2—Problems with Sexual Matters.

It was found that nearly 50 percent of woman physicians had experienced problems in dealing with sexually aroused males during physical examinations. One older woman physician commented that she had developed a style based on experience such that this no longer occurs. Another physician reported that a male who had consulted her for impotence felt cured after he experienced sexual arousal during the routine examination!

The majority of women felt comfortable in their ability to obtain a sexual history and did not feel that they needed more interactional training in this area. However, it appears that few of them take a sexual history as a routine! This was apparently independent of year of completion of training, and is likely to be a difficult area for women physicians.

3—Consultative Practices.

Consultation trends were not influenced by gender except in the referral of patients to ob-gyn specialists. Most women considered that their patients might prefer a female physician, and frequently gave them this option. All those surveyed did not feel any prejudice on the part of colleagues referring patients to them, but a number thought that there was a preference for certain patient types who were referred, such as women who sought more interactional time from their physician. A significant number of women would have preferred to refer to a qualified woman physician, but really could not do this because, apart from ob-gyn and pediatrics, there are practically no female subspecialists on Oahu (one general surgeon, one rheumatologist, and one geriatrician).

4—My Own Reflections on Patient Care Issues in Diverse Situations.

Having been a full-time teaching physician in a New York City Hospital, and then an internist rheumatolost at a major Army teaching hospital for six years, and now in private practice of rheumatology on Oahu, I have felt no outward anti-woman feelings in my peers or in my patients. I think, however, it is fair to state that there are differences in gender-based interactions between peer physicians that have an impact on the "we exchange" information, such as casual opportunities to discuss medical issues and patient care. I think that woman physicians tend to be professional "loners" and frequently do not have the opportunities afforded our numerous male colleagues in MD-to-MD interactions, such as on the golf course. So many of us, due to our dual commitments to medicine and family, and perhaps also due to some social isolation from other female professionals, do not interact on the same level with our male peers; rarely do we interact with female physicians. I think that the positive response to this conference underlines an interactional problem, be it the need for an "Old Girls' Club" or finding the time to play golf!

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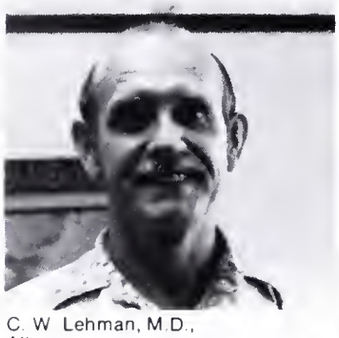

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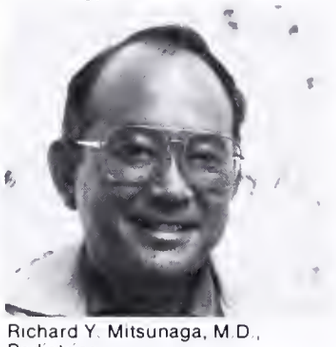

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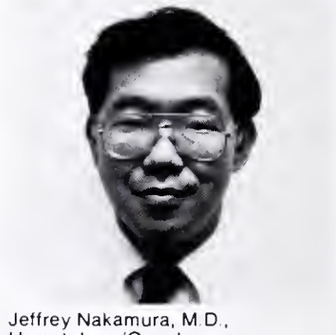

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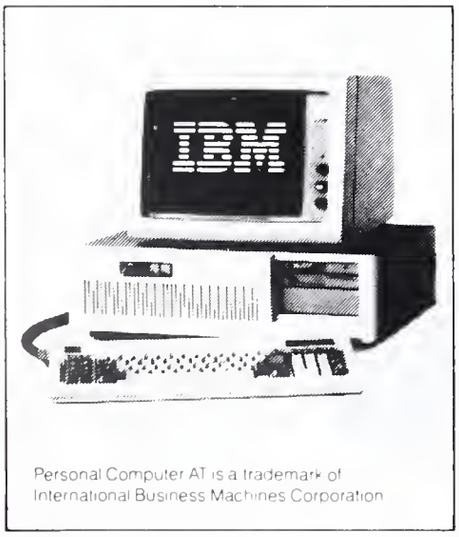

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IV. Playing By His Rules

Jing Hsu, MD*

(Fourth in six-part series)

Disparities in achievement between men and women persist in spite of gain. In the past decade or so, women have accomplished much in the field of medicine. For example, since 1970, the number of women entering medical school more than doubled.[1, 2] In 1970-71, the proportion of women in the entering class of U.S. medical schools was 11.37 percent. By 1980-81 it was 29.63 percent. (Association of American Medical Colleges, memorandum 81-6. September 1981.) The proportion of women faculty members increased from 15.2 percent in 1978 to 16.2 percent in 1981.[3]

However, there are still disparities; women faculty remain clustered at lower ranks in nontenure-track positions:

Instructor: 21.9 percent (men 8.8)
Assistant Professor: 44.9 percent (men 35.1)
Associate: 18.8 percent (men 24.3)
Professor: 8.7 percent (men 29.8)

Women are underrepresented in administrative and leadership positions in U.S. medical schools.[4]

Senior Deans: 7.8 percent
Associate Deans: 9.6 percent
Assistant Deans: 17.2 percent
Department/division chairs: 2.3 percent

To our knowledge, no women are full deans. Women physicians are paid less than their men counterparts: A survey of the economic status of women in medicine showed that the median net earnings of women was nearly 30 percent below that of the typical physician, even when men and women have had comparable training and are spending equal numbers of hours working.[5]

Ten years ago the major problem for women in medicine was initial access. Now, it is advancement through academia and the professions. Clearly, women physicians are less likely to advance as far and as fast as their male peers. Dr. Alexandra Symonds of New York School of Medicine once said that, "In medicine, women have opened the door to service, but as yet only a few have opened the door to power."

What are the factors accounting for these disparities? The reasons are numerous and complex, but much of the anecdotal evidence and research show that the following factors may have contributed to the differences in achievement between men and women:

• **The lack of adequate social network.** Success often depends not only on what you know but who you know. Men have an "old boy's" network that generally excludes women.

• **The lack of available mentors.** Success often depends not only on hard work but also on encouragement, guidance, support, and advocacy on the part of those who are already established in the system. The men who are well-established predominate; men are generally reluctant to sponsor women. Thus there are fewer opportunities for female physicians to be guided and introduced into the path to success.

• **Heavier workload.** Women physicians usually have to meet the added demands of work at home, and this may limit their ability to achieve professionally.

• **Lack of good role models.** Because there are fewer women with high rank or in powerful positions, women have fewer opportunities to identify with other successful women and therefore have less ambition and lower expectations of themselves.

• **Sexual identity conflict.** Behaviors promoting "success" are considered "masculine"; therefore if a woman behaves in a way that helps her to be as successful as a man, she might be looked upon by others — and worse yet, by herself — as being less feminine.

Furthermore, society also uses a double standard in judging male/female behavior. For example, when a man voices his opinion forcefully, this may be viewed as "assertive" however, when the person is a women, the same behavior may be seen as "aggressive."

• **Unfamiliarity with social rules.** Men make rules that determine what is appropriate in certain situations. These are often subtle. Women, because they have been socialized differently from men, are usually unfamiliar with such rules and therefore unable to react in an appropriate way. For instance, when your boss says: "Don't worry about it," it may mean that something's going to make you upset, but he doesn't want to make you alarmed before it actually happens. Therefore, the appropriate response to your boss' remark, "Don't worry," is to worry.

• **Social roles discriminations.** There is considerable evidence that sex serves as a social category, that society views women and men as distinctive groups and assigns different social roles for them (often in favor of the men).

For example, the performance of males and females are judged differently. When a group of women were asked to judge the quality of professional published articles, there was a bias toward male authors.

Sex also influences the attribution of causes of success. Men were believed to have done well because of ability; the woman's performance was attributed to a greater extent to external factors, such as luck.[6] Grant and her colleagues in 1980 compared the scores of self-ratings and peer-expectations of a group of male and female medical students and found that both groups demonstrated bias in favor of men in term of competence.[7]

Grant also found that men with high levels of self-rated competence in an area were nominated by peers as "the best" in these areas. Women with similar levels of self-ratings in those areas were not. Also women consistently needed higher grade point averages than did their male classmates to be nominated on the basis of these dimensions with as great a frequency. These studies indicate that in our society, men are, in many ways, valued more than that of women. Some of the research shows not only that men see women this way, but that women

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see themselves this way also.

These subtle forms of discrimination are often inadvertent, sometimes even well-intentioned; they often seem "normal" in the course of everyday interactions between men and women. Recent studies, however, have shown that when specfic information about a person is supplied, sex loses it prominence as a determinant of judgment.[8] In the absence of such information, stereotyped conceptions prevail. We can assume that when people are made aware of these phenomena, discrimination will diminish.

Experience has shown that failure of any group appropriately to acknowledge, utilize, and reward any contribution by a member is to the disadvantage of the whole group. Discrimination based on sex or any other category, overt or subtle, is a loss for both sexes. More understanding of the phenomenon is beneficial to us all.

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V. Career Choices and Tensions: The Woman Internist

Gladys C. Fryer, MD, ACP Member*

(Fifth in a six-part series)

It is not intended simply to make this a reminiscence, but a certain amount of background information is necessary to an understanding of present positions. As I grew up there was a difference between a "woman" and a "lady" and it was not appropriate for a lady to "work" — even in a profession. It was also, of course, at a fairly early stage in the entry of females into a male world.

One event effectively cut across any petty ill-feeling about my personal frustrations. That was World War II. Women as well as men were called up for service in England, and only later did we all realize that the war was not only a major dislocation to our individual careers, but was also an emancipating factor. We could never return to the fluttering femininity that was our lot before, any more than Englishmen in the tropics returned to the topees and spine pads of the pre-war period.

To be a wife and mother attempting a career in medicine, however, was still somewhat unusual, and I was turned down by the medical school of my choice (after passing the written entrance examination) on the basis that I had one child already and would almost certainly want another.

The first major advantage I had, however, was the *right kind of husband.* We had two sons and were living in Singapore when my husband stated that he felt I was an economic cost to the community if I did not exploit my full potential and study medicine, to which I was drawn by inclination and some degree of aptitude. When I gained entrance to medical school at the University of Melbourne, Australia, he applied for and obtained an academic appointment in the same university. I wished to be a full-time wife as well as medical student. My husband again intervened and pointed out that I should not pass my anatomy examination at the end of the year if I did not permit him to help with the household chores (no mention of physiology and pharmacologhy, which I loved and found easy). I gave in, and he has regarded it as his right to help me ever since.

I felt very strongly that as I was working all day, my time should belong to the family in the evening, at least until our sons went to bed. This meant that I did not open a book till fairly late each night — though I also became quite good at reading Gray's Anatomy at the same time as I was doing the ironing!

My second major advantage was the *right kind of sons.* We did not use words such as "good" or "naughty," we just treated them as if they were responsible people, and they responded and enjoyed the greater stature it gave them. Obviously they were not prigs or paragons, but we felt as if we were all on the same side. My elder son fed histology slides under my microscope and asked me to identify them. We all listened to heart sounds together when I got my first stethoscope. Our big thrill was when our two sons were present at my graduation ceremony.

Discrimination? I am not sure that it ever mattered to me. In medical school there really was none. There were eight women in my class year of 220, and it was a six-year course. It was tacitly accepted that nobody had gone to the trouble of qualify-

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* Assistant Clinical Professor of Medicine
University of Hawaii School of Medicine

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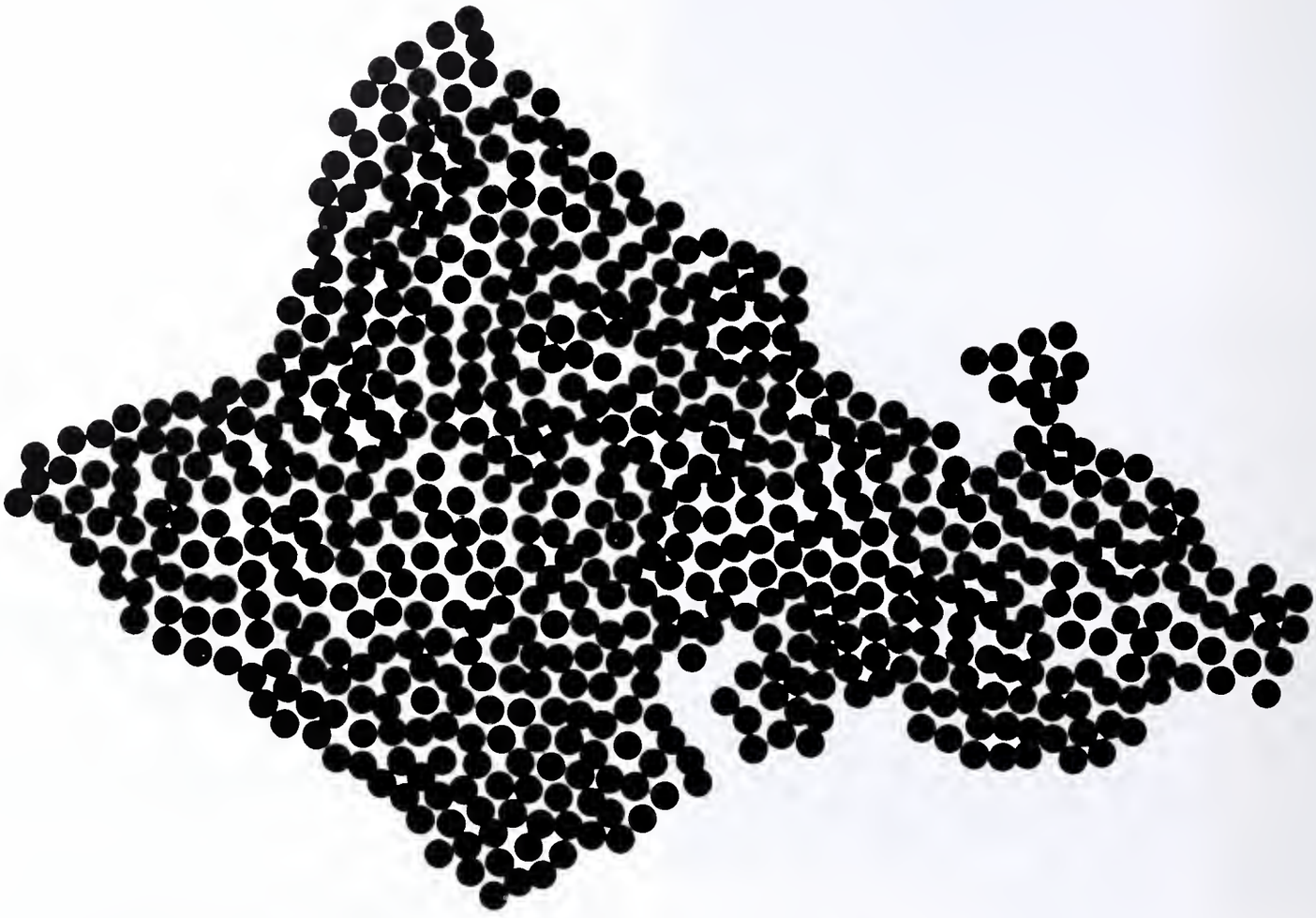

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ing for admission and studying hard for six years unless they were serious about medicine; this especially applied to women. We sought no special privileges because of our sex. The rules for qualifying to take examinations were strict and allowed no exceptions. For instance, when I stayed home with my younger son when he had chickenpox at the time I was doing my three months residence at the Women's Hospital, I knew that more than a certain period of absence would oblige me to repeat that three-month assignment (fortunately I just made it). In residency there was no difference among residents — one or two of the patients commented on having a female doctor but no one objected.

Discrimination was possibly present in England, but I was there as a graduate student and was never aware of it. I will not enumerate every country I have lived in, only to say that there was variable acceptance of women physicians in different places, but in most I was more aware of being a foreigner than of being a woman. I was always very happy to work in my own niche and not spend time bothering with prejudiced people (look at the doughnut and not at the hole). If I ever felt a prick of irritation at anyone's attitude I told myself that I would put the episode aside only to be included in my memoirs.

It is true that had I been a free agent — by which I mean unmarried, there are other things I would have chosen to do in medicine that have not been possible for me. However, I do not feel I have lost anything. I have enjoyed my family immensely, and have also put a great effort into medicine. Perhaps in other circumstances I could have accomplished more technically, but I should not have been as well-rounded a person. I believe that the practice of good medicine does require more from us than mere knowledge and technical ability. Personal integrity, compassion, maturity of outlook (not necessarily of years) and a broad base of general knowledge are traditional attributes of a physician, which if relinquished, would be a sad thing to see. I do not have the temerity to suggest that I have always been exemplary in these respects, only that I have always kept them in my sights as desirable.

It is not possible to move long distances internationally and then fall into the right job simultaneously for very different disciplines in husband and wife, and it has seemed to me appropriate that my husband, being academically my senior, should be the deciding factor. I still have work ahead of me, and like other physicians, my vistas are changing with a rapidly changing world.

Over the years the position and sphere of influence of women have changed. On our first visit to the United States 30 years ago we found it to be a highly matriarchal society. It is that no longer. In many Asian countries it is still true that the power is in the hands of the men, but to *influence* that power, one must reach the ear of the senior women in the family. American women have relinquished this position while they have sought to be equally accepted with men in all areas of life. They have not quite secured the equal acceptance and they no longer have the old behind-the-scenes influence. Times of change are always rather uncomfortable. Women are still grappling with their new identity. It is not quite what they anticipated; women at first tried to be like men. They are beginning to see that they do not need to be, and indeed should not be, supernumerary men. Times of change may be uncomfortable, but they are also exhilarating. Women physicians are, by their training, uniquely capable of contributing much to the creation of the new professional woman. Whatever that woman may prove to be, she will be most successful if she exploits those characteristics peculiar to women as well as pushing her newly found expertise in fields previously reserved for men. Women are *not* like men, aand we should be the first to say "Vive la difference!" in a nonsexist sense. As has been touched on in this conference, some of the most successful men, especially physicians, have been so *because* they have some essentially female attributes.

Medicine has changed and is changing. Our body of knowledge and the way we practice have been revolutionized in the last decade. The *rate* of change is still accelerating. Again, it is less comfortable, but more exhilarating, to be involved in the change. Women physicians may have the advantage over their male counterparts in that they are already having to change and therefore already have the momentum. I believe that in addition females are innately more capable of adaptation than males. Let women physicians use their unique sensitivity to realize the growing edge of medicine and their manipulative capabilities to take a major part in directing its flow. Let this also be to no selfish ends, advancing only the interests of women physicians, but to the greater achievement of medicine itself.

In these exciting times of change, let women physicians not be seen to be absorbed in their own small issues of securing rights and bending the discipline to their convenience. Let the front line be well-represented from the ranks of women physicians using those unique talents that men do not have. Let them dedicate their efforts to being physicians first and women second. Then a strange thing will happen. By giving all to medicine, women will find the recognition that they could not have acquired by concentrating on recognition per se.

VI. The "Superwoman" Syndrome

Linda Hawes Clever, MD, FACP*

(Last in a six-part series)

The good news is that there is no such thing as "Superwoman"! There were Superman, Supergirl (his cousin), Superboy (Superman as a child) and Wonderwoman, but the only time there was such a thing as "Superwoman" was when Lois Lane was hypnotized to think that she was. Therefore, we do not need to live up to a myth. Pure relief!

These following statistics need to be appreciated:

• Women make up between 10 percent and 13 percent of practicing physicians in the United States now. This proportion is likely to increase to 25 percent to 35 percent in the next one to two decades.

• The number of women on the tenured faculty at Stanford Medical, one of the medical schools in the Northern California Region of the ACP, is six. The men there number 49 (of which three are PhDs). Of the assistant professors, six also are women. At UCSF there is one woman and 45 men, and at UC Davis, two women and 28 men.

• Regarding mental health, women physicians probably have slightly more than three times the annual suicide rate of women overall in the United States (men physicians probably have about a two times increased annual suicide rate compared to other American males). This statistic needs study, understanding, and intervention, especially since suicide certainly doesn't meet the criterion for surviving, much less thriving.

Concerning strategies:

1—Keep your sense of humor, not that that's so easy, especially with long-term (although admittedly not constant) battering.

"A sense of humor" was mentioned in the 1977 Tulane survey as the sixth most important attribute for women physicians to have (behind stamina, organization, motivation, dedication, and ability to separate professional and maternal roles). I would put it first. Alice Hamilton, pioneer in Occupational Health and the woman on the first faculty at Harvard (1919), always thought it was amusing that she was not allowed to have a season football ticket and it did rankle her not to be able to march in academic processions.

I keep a list of strange and funny things I have done when I should have been doing something else. This includes making a print of a very dead trout with our daughter, who was doing an extra project for biology, while a taxi was waiting to take me to the plane for an "important" meeting; helping the beekeeper extract the second hive of bees that he had to take through the living room of our house when I should have been preparing for a Medical Grand Rounds presentation; getting lime sherbert and 7-Up for our Annual Mother-Daughter Tea when the Wall Sreet Journal was trying to contact me for an interview.

2—Do things that haven't been done before, and become an expert; the area may even become important.

Consider Marie Curie and radiation (Curie was a single mother after Pierre was killed in an accident in 1909). Elizabeth Blackwell, the first woman physician in the United States, entered Geneva Medical College in 1847 by a most unusual method. But it was clear that being "the first" was a big help:

"The class, numbering about 100 students, was composed largely of young men from the neighboring towns. They were rude, boisterous, and riotous beyond comparison. It was the first course of medical lecturing which I attended in a medical college in the interior of this State in 1847-48.

". . . During lectures it was often almost impossible to hear the professor, owing to the confusion . . . Some weeks after the course began, the dean appeared before the class with a letter in his hand which he craved the indulgence of the students to be allowed to read.

". . . The letter was written by a physician of Philadelphia who requested the faculty to admit as a student a lady who was studying medicine in his office . . . The faculty decided to leave the matter in the hands of the class with this understanding — that if any single student objected to her admission, a negative reply would be returned.

"It subsequently appeared that the faculty did not intend to admit her, but wished to escape direct refusal by referring the question to the class with a proviso which, it was believed, would necessarily exclude her. . . . But the whole affair assumed the most ludicrous aspect to the class, and the announcement was received with the most uproarious demonstration of favor. . . . The resolution approving the admission of the lady was sustained by a number of the most extravagant speeches which were enthusiastically cheered.

"The vote was finally taken, with what seemed to be one unanimous yell: 'YES!' When the negative vote was called, a singie voice was heard uttering a timid 'No.' The scene that followed passes description.

"A general rush was made for the corner of the room which emitted the voice, and the recalcitrant member was only too glad to acknowledge his error and record his vote in the affirmative."

3—Ignore critics if you can't convert them. Also, the more outspoken they are, the more easily identifiable they are as people on whom to do an end run.

Florence Nightingale said: "You say women are more sympathetic than men. Now if I were to write a book of my experience, I should begin, 'Women have no sympathy.' I've never found one woman who has altered life by one iota for me or my opinions . . ."

There may be a special problem with women criticizing women. Indeed, Elizabeth Blackwell said, "I shall have to encounter much more prejudice from ladies than gentlemen in my course. I am prepared for this . . . "

4—Beware of what you say, because what you say becomes what you think becomes what you believe. Granted we are all doing too much, but we have the choice of being grumpy or enjoying it — and learning to cut down in the future!

It's best to think, what you *want to happen.* A colleague, whom I asked to participate in a panel said, "I'd be happy to do

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* ACP Governor, Northern California
Associate Clinical Professor of Medicine

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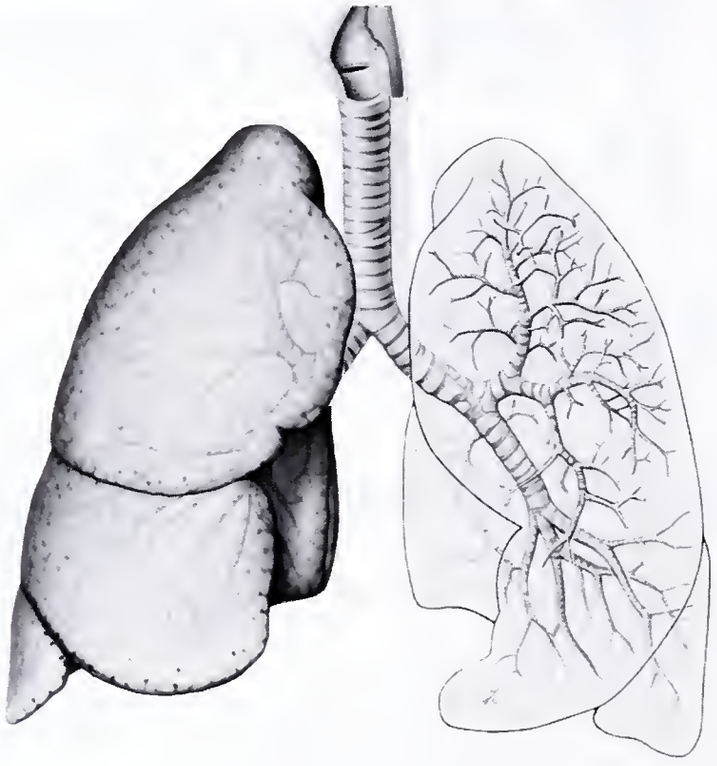

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Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

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- Discontinue Ceclor in the event of allergic reactions to it.
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- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
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- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
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Therapy-related adverse reactions are uncommon. Those reported include:

- Gastrointestinal (mostly diarrhea): 2.5%.
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, erythema multiforme, serum-sickness-like reactions): 1.5%; usually subside within a few days after cessation of therapy. These reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
- Other eosinophilia, 2%; genital pruritus or vaginitis, less than 1%.

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it, but I'll fall flat on my face." I spent most of the rest of the conversation doing brief but intense psychotherapy and urging optimism.

5—Feel strong, take charge, and negotiate the shape of life you would like to lead. Don't be embarrassed by asking for "special circumstances" — it may work out very well for everyone! For example, I work 10 to 12 hours every day for four days a week, which gives me flexibility and freedom — and the hospital's salary obligation is less. The freedom is worth it!

6—Arrange time for yourself; make good memories for you and your family. This means avoiding the hypnotism of the fast lane that can be given as an "excellent reason" for not dealing with feelings, conflicts, or making plans. This can be an "excellent " reason for not communicating — but then, what??

Jean Fetter, Dean of Admissions at Stanford, commented recently to a high-school audience: "There is no success without considerable cost." This is true, but it isn't cheating to make things easier for yourself. You don't have to suffer to gain love or accomplishment. But, what we all need to do, is develop a game plan, a strategy, goals. Please read "Games Mother Never Taught Me," by Betty Lehman Harrigan (Warner Books, 1977).

7—Be sure to have mentors and friends. Both take time.

It is a pleasure to have several mentors and be mentor to several others. One must understand the give and take, and also that the relationship may end. And that's all right. Friendship, on the other hand,"is an ever-sheltering tree." It's unlikely that colleagues are true friends, to whom you can spill your guts and discuss anything more basic than hospital politics.

8—Be healthy. Smoking, drinking, and drugs are bad; blood pressure and breasts should be checked regularly for difficulties; seatbelts should be worn.

Self-awareness is important, too. Check out sources of stress, recognizing that not all stress is bad; but if the phone or certain circumstances bug you and if your strategies and roles don't quite fit — discover these and do something about it.

9—Miscellaneous:

- Seriously consider limiting the size of your family. This is part of setting limits, and it takes discipline.
- Remember that "this, too, shall pass." One of our favorite tension-relieving statements is: "Oh, well."
- Have a pediatrician take care of your child and the internist take care of your husband. Life is fragile and you must not have any "If only . . ." — especially if your "onlys" involve the health of your loved ones.
- Persevere.
- Consider lowering your standards, not just your expectations! A friend of mine said the other day, "I can no longer afford to be a perfectionist." Hooray!
- Be willing to change. The Chinese character for change is a combination of "crisis" and "opportunity."

10—Know that work isn't enough; making a living isn't the same as *living*.

John Gardiner recently said: "People can achieve meaning in their lives only if they have made commitments beyond the self-religious commitments, commitments to loved ones, to fellow humans, to excellence, to some conception of an ethical order . . .

"Among the commitments we must honor are those that stem from a mutual dependence of the individual and the group, meaning by 'group,' family, community, nation, humankind . . . . The unhappiest people are the ones who never escaped the prison of the self, never find a cause worthier than their own frets and ailments . . .

"We all have something to work for outside ourselves, bigger than ourselves."

One of my main goals is to make things easier for those who follow.

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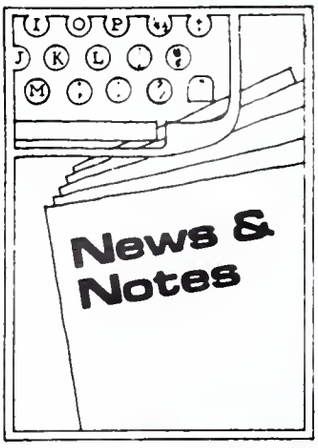


HENRY YOKOYAMA, MD

Life in These Parts

Bumper sticker on a gray, late-model Buick Century station wagon read "Ex-wife in trunk."

The Hawaiian Rent All, an equipment rental store at the corner of Beretania and McCully has a huge sign with eye-catching slogans. A few months ago it read: "Hoist A Few With Our Auto Jacks." A more recent one said: "Fastest Way To A Natural High — Rent A Ladder."

Item gleaned from KUP's Column Chicago Sun Times, July 3, 1986: "In a tribute to Chicago medicine, world-famous neurosurgeon Ralph Cloward of Hawaii chose local orthopedic surgeon William Meltzer for his hip-replacement operation."

More bumper stickers: A rusting Volkswagen of obvious vintage warns "This is not an abandoned vehicle." An older-model Chevy 3/4-ton truck with huge balloon tires that raise its threatening bumpers higher, "Go Ahead Make My Day."

In August, former Philippines President Ferdinand Marcos had cataract surgery at Surgicare by eye man Worldster Lee, who was assisted by gas persons Ken Kern and Efren Baria, (from Marcos' home province, Ilocos Norte). Marcos quipped, "My aiming eye is going to be all right again."

From MidWeek magazine, Aug. 20: "Well-deserved retirement for Dr. Sam Allison (the Waikiki dermatologist). When Sam first hit Hawaii in '42 he was in charge of venereal disease control for the Territory Board of Health." (Ed: Sam was HMA president over 20 years ago when he started us writing this column.)

From Building Permits, Pacific Business News: "$48,000 Hawaii Medical Assn., 1360 S. Beretania St., foundation. Contractor: Prime Construction. Tax Key: 2-4-11-2."

The new state liability reform law created a special $100,000 fund to help hard-pressed OB-Gyn doctors, including those in Kona, pay their insurance premiums. Nancy Stukan and Ken Grant of Mauka Ob-Gyn Associates of Kealakekua have stopped offering obstetic services, leaving Kona with only one practicing obstetrician, Sira Santad (who is covered by HAPI). But Nancy and Ken refused the state subsidies. Said Nancy: "I am philosophically opposed to and would not take money from this fund. Doctors everywhere are subject to the problem of medical liability. I think it's discriminatory when money is allocated to only certain doctors."

Nancy feels that only meaningful tort reform would enable her and her partners to resume full services. Ken feels that the new law is "windowgloss" and "all smoke." He said that even if someone offered to pay his entire insurance bill, he wouldn't accept money to resume practice under the current system of medical liability because he would still be subject to loss of time and reputation.

Hilo Hospital is having problems again. It seems that the fate of the psychiatric facility at the hopsital remains at a standstill while administrators, mental health rights advocates, and psychiatrists hash out disagreements regarding the location of a temporary psychiatric unit. The current psychiatric unit is in the old hospital building's South-l wing, which many consider unsafe.

The Hawaii County Planning Commission gave permission for a joint venture between Straub Clinic and Kailua-Kona Medical Clinic Inc. of Kona to build a $2 million, two-story clinic in Kailua-Kona. Tom Battisto, Straub executive administrator, had planned to name the facility Kona Family Health Center, but HMSA spokesman Ray Norris had already registered the name for HMSA's own health center in Kona. That means Tom has to come up with another name.

Robert Schmidt, director of the Center for Preventive Medicine and Health Research, and professor of Health Professions Program at San Francisco State University lives part of the year in Lihue, where he works on the Health Watch project begun in 1970. Robert thinks that despite widespread obesity, alcoholism, and smoking in Hawaii, women here live an average of 18 months longer than do their counterparts on the Mainland, as do the men simply because people care for people here.

On Aug. 4, Gov. Ariyoshi signed the tort reform bill. The act changes the state joint tortfeaser law that results in a defendant paying for 100 percent of an award even if he is only 1 percent liable. If the defendant is less than 25 percent responsible, he would now pay a percentage of the noneconomical award equal to his percentage of liability. The act limits court settlements for pain and suffering to $375,000, but exempts product liability, environmental, and other cases from a ceiling. Liability insurance rates are scheduled to go down 10 percent in October this year, 12 percent in October 1987 and 15 percent the following October.

The act forbids the cancellation of insurance coverage without good reasons, allows government agencies to make periodic payments when awards are large, reduces the time a child can file a medical malpractice suit, and forbids awards for emotional stress or disturbance stemming from property damage. (Ed: Well, it's a start anyway.)

David Elpern, Kauai Medical Group dermatologist and computer expert offered courses in September on computer access techniques to all island physicians. Wilcox Hospital is the first to purchase access to the National Library of Medicine in Bethesda. David, who stresses the importance of access to the National Library and other data bases, said "A medical diploma is not enough any more. Even continuing education classes — the extra courses a physician takes throughout his career — are not enough. Doctors need today's information. A true physician never graduates, he keeps learning."

A First for Hawaii

An 84-year-old Kauai patient with chronic obstructive pulmonary disease, CHF, and pneumonia who had been on constant 02, requested that he be allowed to stop eating because of the quality of his life. Three attending physicians, Neal Sutherland, Larry McNight, and

Thatcher Magoun agreed with the patient and a psychiatrist declared him mentally competent. Judge Kei Hirano, of the Fifth Circuit Court, was asked for a judgment and he concurred with the patient's decision. The patient died peacefully 53 days after his last meal and after watching the Special Olympics in July on TV.

Elected, Appointed, & Honored

Internist-nephrologist Jared Sugihara was elected to fellowship in the American College of Physicians (ACP) at its annual session in April in San Francisco. Dwight Matsumura of Kailua, Hawaii, was elected to fellowship in the American Academy of Pediatrics at a recent meeting of the AAP Executive Board. Straub radiologist Virgil Jobe Jr. was named as one of 84 fellows by the American College of Radiology Board of Chancellors. Also named was Fronk radiologist Maurice Reeder.

The Association for Retarded Citizens of Hawaii elected Peter Rotar treasurer and Angie Connor, Arthur Mori, and Dorothy Worth directors.

Entrepreneurs

For $24.95, parents who fear their children are involved in drugs, may purchase the "Aware" kit marketed by American Drug Screens of Dallas. Testing of urine samples will be done by the American Institute for Drug Detection in Chicago, which will test for marijuana, cocaine, PCP, amphetamines, barbiturates, and several prescription drugs.

Straub Clinic & Hospital Inc. assumed half ownership of Fronk Clinic's operations under a general medical partnership, as announced at the end of August. Island Physicians Association, a nonprofit corporation formed by The Honolulu Medical Group Inc., the Kauai Medical Group Inc., and The Queen's Health System has assumed management of Island Care.

Oncology Dialogue

A 67-year-old man had metastatic adenocarcinoma of the clavicle consistent with Stage IV prostatic CA. Urologist Bill Shiraki noted with some pride: "We managed to do all the diagnostic studies and even the orchiectomy without hospitalizing him even one day." Moderator Glenn Kokame joked, "Did he even tell his wife?" Glenn continued: "The orchiectomy will reduce his testosterone level and you also have him on DES 1 mg daily. How about the testosterone from his adrenals? I understand ketoconozole blocks the testosterone from the adrenals."

"Ketoconozole is an antifungal drug given orally. A few centers are now using the drug," Bill explained. Glenn asked, "How about LHRH which also suppresses the adrenal testosterone. Any experience with the drug?. Is acid phosphatase elevated in visceral metastases? If so, can patients be followed with acid phosphatase and how about alkaline phosphatase?" Replied Bill: "Acid phosphatase is a good marker. I've had patients doing well and their acid phosphatase rises suddenly. Then we discover mets within six months. Alkaline phosphatase is only good for bone mets."

Sportsmen

"Small world: When Straub heart specialist Dr. Raymond Itagaki was examining Margaret Rose, he asked, 'Would you happen to know a Joe Rose?' Smiling, she said, 'He's my husband!' Seems that 30-odd years ago Ray was a Little Leaguer in Joe's baseball school." (KGU's senior editor Rose is the longest active radio personality in Hawaii.) From Once Over Lightly, Midweek, Aug. 13.

Kaiser ER physician Debbi Putnam is also an avid windsurfer, having been active in the sport for three years after just one lesson at Kahana. Her free time is also spent paddling, heli-skiing, wave skiing, jogging, working around home, and growing orchids. Another windsurfer is Kihei private practitioner Don Griffith, a three-month participant of the watersport who says he'd be better off with more instruction. The same scene that enthralled Debbi — windsurfers sailing over the waves at Hookipa Beach — also captivated Don.

The Mid Pac Thursday Club hosted its Calcutta on a September Thursday afternoon. Modest Ed Izawa (18 hdcp) shot a cool 67 to win first place. The smarter golfer was Garth Morimoto (19 hdcp) who shot a net 67 for second place, but who had bet on Ed to win.

Hole-in-one: Rodrigo Bristol used a 5 iron on the Mid Pac 4th hole in July 1985. Jose Madamba used a 3 iron on the Mid Pac 6th hole in February 1986.

Kalaupapa Revisited

Time was when we had annual HMA Skin Diving Tournaments in Kalaupapa for a weekend of fascinating skin diving, where Dick Moore caught 6-pound lobsters in 10 feet of water and Dick Tessoro (former barefoot boy from Lanai) speared a 25-pound ulua in 20 feet of water. But alas, we lost our contacts (Adeline and Teruo Ogawa) when they retired to Honolulu. Seven years later, this past Labor Day weekend, we accompanied the Ogawas back to that isolated paradise only to discover our favorite grounds bare. At the tiny airstrip we met another ex-HMA diver, Marc Shlachter, who had come in on the Zodiac. In Honolulu, as we checked out, a familiar figure in Air Molokai pilot's uniform spoke to us. We recognized ob-gyn professor Tom Kosasa who was flying a group over to Molokai. We recalled how 10 years ago, Tom rented a Cessna and flew in with four residents (including Gary Kimoto) to join us for the day's diving. The cargo hatch door blew off just before landing, but Tom calmly and skillfully landed the craft without incident.

Physicians Speak Up

Jacob Foster of Wailea wrote to the Maui News: "I take critical issue with your cartoon on the Opinion page of The Maui News dated June 27, 1986. It facetiously portrays an army sergeant receiving the Medal of Honor citation for allegedly saving the lives of his fellow soldiers in the nonsmoking section by diving on a lit cigarette. Instead of putting down sincere efforts to save health and lives by reducing smoking, you place yourself in the position of ridiculing preventive measures. Your humor falls flat and your editorial opinion requires prompt re-evaluation."

David Rodwell wrote to the Honolulu Star-Bulletin: "In view of the latest poisoning of Excedrin capsules I have thought of a way to reduce the chance of tampering to almost zero." David's solution is to fill each bottle of Excedrin capsules with nitrogen and a plastic cap with colorless ferrous sulfate. When the bottle is opened, oxygen rushes in and turns the dip stick brown. "Any tampering and bingo, the indicator strip changes color. It would be hard to beat that."

Donald Donohugh of Koloa, Kauai, had spent five years recently in Central America as an epidemiologist with an international research team and then as a visiting professor of medicine. When a letter to the Forum suggested that readers write our representatives about Nicaragua, Donald made three suggestions: First, "No evidence be believed from anyone who has made a brief fact-finding tour. I have yet to hear anything correct from these sources." Second,

"None be believed coming from any particular organization — no matter how high sounding its title. Each has its own ax to grind and distorts its reports accordingly. Only a nonbiased person who is fluent in the language and has traveled extensively in the area for at least two years should be listened to." He also noted that "The press has its own bias. For example, the atrocities committed by the Sandanistas are about 10 times those of the Contras. Yet our media tell us about 10 times as much about those of the Contras." Third, "Think of the Sandanistas as if they were Soviets. Indeed, Soviets and Cubans are all over the place and the Sandanistas are merely figureheads."

When the State Board of Education panel decided against admitting students with AIDS to public schools, Fernando Atienza, chairman of the Hawaii Chapter of the American Academy of Pediatrics sent the Star-Bulletin a list of recommendations and guidelines approved by the Committee on Infectious Diseases of the Academy. Fernando explained that the recommendations included unrestricted school attendance with their physicians' approval. "The transmission of AIDS through casual person-to-person contact as would occur in a school setting, in particular, transmission from saliva and tears, is either theoretical or undocumented." The State Dept of Health has said there are no AIDS patients of school age in Hawaii.

Hors de Combat

A Matter of Opinion: Hazel Cunningham of the Hawaii Coalition for Consumer Justice said: "The insurance industry has manufactured the insurance crisis. Doctors should be angry at the insurance industry for gouging them unjustly. There is no good reason to charge such outrageous premiums when the facts show that only one-fourth of the total premiums collected is paid out in claims. Clearly, the target should not be our tried and proven civil justice system. It is the insurance industry which, in the face of a $2 billion increase in profits for the first quarter of 1986, still thinks it proper to argue that compensation to severely injured people must be limited. Doctors should be on the side of victims against the predatory attacks of the insurance industry." (Data released by the National Consumer Organization shows that insurance companies in the State of Hawaii have taken in more than four times the amount of premiums for medical malpractice coverage as they have paid out in claims over the 10-year period from 1975 to 1984.)

Phillip Hellreich, president of the Hawaii Federation of Physicians and Dentists wrote: "The Hawaii Federation of Physicians and Dentists wishes to express its great dismay and outrage over Gov. George Ariyoshi's veto of legislation that would have reformed the state Medicaid Fraud Control Unit. We oppose all Medicaid fraud. However, we also oppose violating the constitutional rights of physicians and other health care providers and their prosecution for administrative and bookeeping errors."

Rep. Reynaldo Graulty, chairman of the House Human Services Committee, wrote a bill to protect physicians and other medical professionals from abuse and unfair tactics by the Medicaid Fraud Control Unit, but Gov. Ariyoshi vetoed the bill on grounds that it "erects numerous procedural and substantive impediments in the way of effective and efficient" investigation and enforcement of Medicaid rules. Graulty said, "I'm concerned that if providers are treated as criminals without due process, then there will be fewer providers willing to provide treatment to Medicaid recipients."

Honolulu medical examiner Alvin Omori says that Oahu is experiencing more deaths from cocaine than from the more widely feared heroin and the number is greater than five years ago. Alvin says these are classic deaths like those of sports figures Leonard Bias and Don Rogers. State records show that five have died of accidental cocaine overdose in Hawaii in the past 30 months and a sixth committed suicide using cocaine, morphine, and codeine.

Miscellany

Question: What did the potato chip say to the corn chip?

Answer: Are you Frito Lay?

Said the corn chip to the battery: "I'm Frito Lay, are you Ever Ready?" (From Patsy Matsuura, our witty PHN from Hilo.)

Why Socialized Medicine Stinks by Donald Kaul of Tribune Media Services. The following are excerpts:

"Let's face it, folks, socialized medicine doesn't work. It pains me to admit that. As a young liberal, I was always in favor of socialized medicine. I held the naive belief that adequate health care was a birthright of Americans and shouldn't be dependent on one's ability to pay. I thought the best way to achieve a decent level of public health care was to have a corps of salaried government doctors ministering to the needy. I was wrong, I can see that now. What turned me around on the issue were the hearings on Justice William Rehnquist last week."

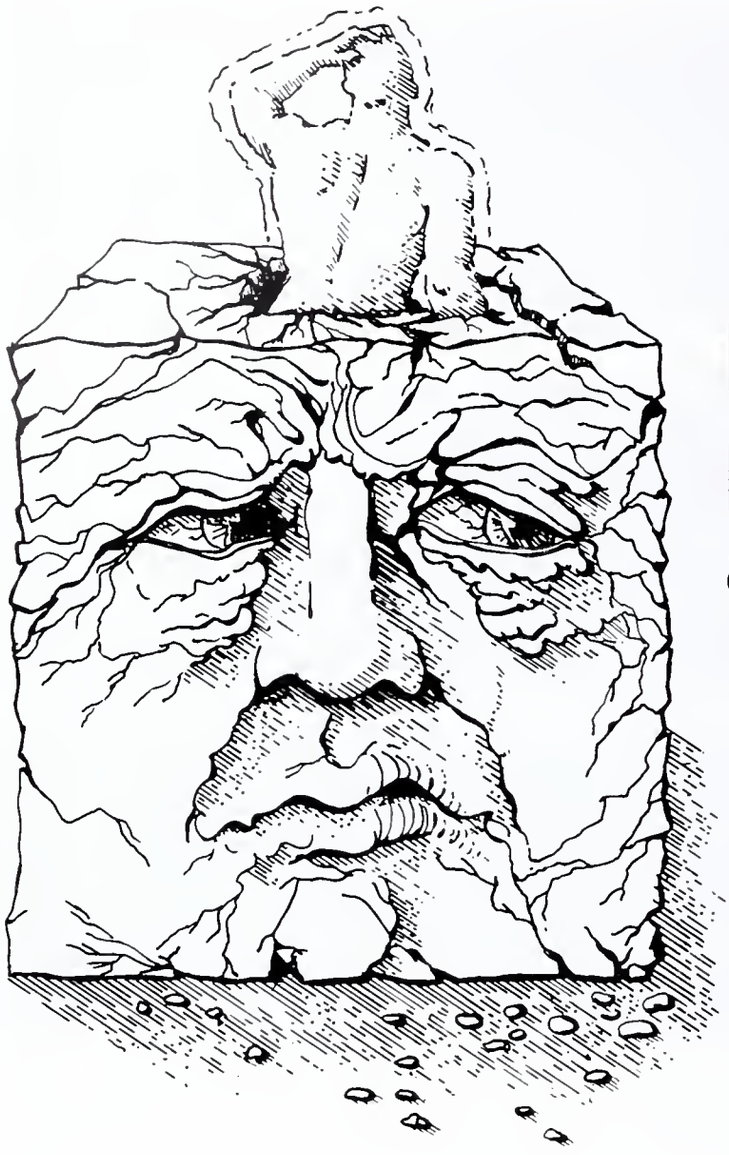
(It seems that Justice Rehnquist was afflicted with a bad back with severe pain and the Capital physician gave him Placidyl for sleep. And he was on it for almost nine years and finally had to check into a hospital in 1981 for a 10-day detoxification program. Then, two months ago, a senator from North Carolina who was confined to a wheel chair committed suicide. The suicide note said that the same Capital physician had failed to diagnose his illness, hypothyroidism, which made his life a living hell.)

(Donald brings up the case of the chief of cardiothorasic surgery at Bethesda Naval Hospital who was dismissed from the service and sentenced to four years in prison on two counts of involuntary manslaughter, one of which involved criminally negligent homicide and 18 counts of dereliction of duty. A senator went into Bethesda Naval Hospital to have a colon polyp removed and the hospital lost the polyp.)

"Sorry, Senator, we can't seem to find it anywhere. It was around here a minute ago, but disappeared. If you want to find out if you have cancer, grow another polyp."

"All of this, as everything goes in Washington, has spawned a joke: Question: What is a camel? Answer: It is a horse that has had a heart transplant at Bethesda Naval Medical Center.

The point is that socialized medicine simply doesn't work. Doctors need more incentive than the mere saving of lives and making people well to do good work. They need money. Nurses will do good work for low wages; so will teachers. Likewise garbage collectors. That's because they are professionals. Doctors are made of finer clay; you have to make them rich if you want them to produce their best effort." (Ed. We get the impression that Donald Kaul, the liberal columnist, doesn't care for physicians in general, whether government or private.)



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REHAB

A Cost-Conscious Approach to the Evaluation of Patients with Low Back Pain

Max G. Botticelli, MD*

Back pain is the most common musculo-skeletal complaint and the seventh most common cause of visits to the internist. It is second only to the common cold as a cause of missed work. The cost to the nation, as a result of diagnosis, treatment, lost productivity, disability payments, and legal fees, is close to $20 billion a per year.[1]

While the vast majority of patients with back pain have self-limited or easily treated conditions, a small percentage has serious illnesses that require prompt, specialized care and are benefited by early diagnosis. Exactly how frequently the primary care physician is confronted with these serious illnesses is not known; best estimates are that between 0.2 percent and 2 percent of patients with back pain have therapeutically important diseases.[2, 3]

Knowing their prevalence is helpful because the cost/benefit ratio of diagnostic tests improves with the likelihood that they will be positive. For example, Liang and Komaroff[2] analyzed the cost-effectiveness of routine back X-rays in a population assuming a prevalence of serious disease of 0.2 percent. They estimated that it would cost $2,072, and the population surveyed would have been exposed to 3,188 mrads* to avert one day's suffering. They considered these costs to be excessive in relation to their benefit. On the other hand, as the probability of serious disease increases, the cost goes down (see Table 1); so that if the probability is 5 percent the cost of averting one day's suffering is $91 and 140 mrads.

Clinical data may be very helpful in identifying groups of patients whose back pain is more likely to be the result of malignancy, fracture, infection or inflammatory disease. If X-rays and other diagnostic studies are reserved for this group of patients, they become more cost-effective. At the same time, groups of patients may be identified in whom the risk of disease is so low so as to make further diagnostic study inappropriate. An example of the usefulness of clinical data can be drawn from the analysis of criteria from the use of X-ray examinations by Deyo and Diehl.[3] They studied 621 patients with back pain prospectively and found the overall incidence of vertebral fracture to be 2 percent. However, all the patients with this cause of back pain were over 50 years of age. Thus, if one used age greater than 50 as a predictor of fracture, the likelihood based on this sample would increase to 10 percent.

TABLE 1
Risk-Benefit and Cost-effectiveness Ratios at Different Frequencies of Serious Disease*

Probability of Serious Disease, %	Risk-Benefit Millirads per Day of Suffering Adverted	Cost-effectiveness Dollars per Day of Suffering Averted
0.2	3,188	2,072
0.4	1,720	1,118
1	858	558
1.5	526	343
2	378	246
5	140	91
10	66	43
15	42	28

* Marginal risk-benefit and cost-effectiveness ratio defined as (millirads or dollars for roentgenogram strategy millirads or dollars for no roentgenogram strategy) divided by (days suffering associated with no roentgenogram strategy minus days suffering associated with roentgenogram strategy).

Reproduced by permission of Drs. Matthew Liang and Anthony Komaroff, *Archives of Internal Medicine*, Vol. 142, Page 1,111, June 1982.

Objective

This paper surveys clinical data that is used to identify patients with back pain who require more intense therapeutic intervention with the intent of defining a rational, cost-conscious approach to the diagnosis and treament of back pain. To accomplish this, the causes of back pain are classified by potential outcome and utility of therapeutic intervention, the clinical data useful in identifying patients in each class are described, and a strategy algorithm is utilized to illustrate a diagnostic and therapeutic process.

Classification of Back Pain

From a decision-making point of view, it is useful to consider the causes of back pain according to their expected outcomes and response to therapeutic interventions. Three classes are identified (see Table 2):

I. Illnesses that are acutely disabling, but either self-limited or

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responsive to conservative therapy.

II. Illnesses that are potentially life-threatening or disabling, for which therapy is available and imperative.

III. Illnesses that are potentially disabling, for which surgical interventions *may* be indicated.

A distinction is made between diagnoses that explain a set of symptoms and those that dictate a more aggressive approach to therapy. Diseases that cause back pain, but are unlikely to influence initial therapy, include spondylolisthesis without neurologic deficits, degenerative disc or apophyseal joint disease, mild to moderate scoliosis, and transitional vertebrae. A delay in diagnosis in this group would not significantly affect the outcome, as a course of conservative therapy would generally be prescribed in any event.

Not figured into this equation is the value attached to knowing the diagnosis. In the event that the reassurance obtained by the patient would offset in his mind the cost of X-ray and diagnostic studies, a different approach might be taken. Incidentally, we have avoided the issue of diagnostic studies, which are done for purely medicolegal issues.

Estimates of the probabilities of each class, based on the available data are listed in Table 3. Most studies agree that the prevalence of simple mechanical back pain is in excess of 90 percent. Therefore, the avoidance of unnecessary diagnostic and therapeutic procedures in this group is appropriate. Therefore, it would be ideal if very sensitive and highly specific tests were available to identify this group positively. Unfortunately, such is not the case, so that to some extent they must be identified by the absence of risk factors for more serious illnesses.

The strategy algorithm has been divided into three parts to conform with this classification. Each section is explained in the accompanying text.

TABLE 2
Causes of Back Pain
Related to Natural History and Response to Therapy

I. Illnesses that are acutely disabling, but either self-limited or responsive to conservative therapy.
- Musculo-ligamentous strain
- Facet joint imbalance
- Degenerative disc disease without nerve root impingement
- Spondylolisthesis without nerve root impingement
- Mild to moderate scoliosis
- Transitional vertebrae

II. Illnesses that are potentially life-threatening or disabling for which therapy is available and imperative.
- Non-mechanical disease presenting as back pain
- Osteomyelitis, disc space and epidural infections
- Primary and metastatic malignancies
- Inflammatory spondyloarthropathies
- Vertebral fracture

III. Illnesses that are potentially disabling for which surgical intervention *may* be indicated.
- Herniated intervertebral disc with nerve root impingement
- Spondylolisthesis with nerve root impingement
- Spinal stenosis with nerve root impingement

Identification of Patients with Back Pain due to Illness That Are Acutely Disabling But Either Self-Limited or Responsive to Conservative Therapy (Figure 1)

Back pain, in 90 percent of patients, is acute, diagnostically nonspecific, and either self-limited or it responds well to conservative therapy.[4] The cause of such back pain include musculo-ligamentous strain, facet-joint imbalance and non-neurologic disc herniations. To distinguish between these causes is difficult and usually unnecessary.[5]

The pain is most often sudden in onset and both precipitated and made worse by mechanical stress. It is improved by bed rest. It is usually localized to the L/S area but may radiate into the buttock, hip, or thighs. It is not associated with sciatica, which by definition is pain that radiates or extends into the lower leg or foot. The pain is exacerbated during range of motion examination. Flexion is often diminished and there may be loss of normal lumbar lordosis. Traction maneuvers are negative and the neurologic examination is within normal limits.

The usefulness of X-ray examinations in evaluating patients with simple mechanical back pain has been studied by several authors.[1, 5, 6] Although back X-rays are costly, their contribution to diagnosis is variable and they often have little effect on therapeutic decisions. Therefore, their use in this group of patients is best restricted to those who do not respond to conservative therapy, or who have chronic pain but have not previously been X-rayed.

The response of patients with simple mechanical back pain to conservative therapy is prompt.[4] In most instances, improvement can be expected to begin within one or two days and progress to an asymptomatic state within two to four weeks.

FIGURE 1
ALGORITHM — Class I

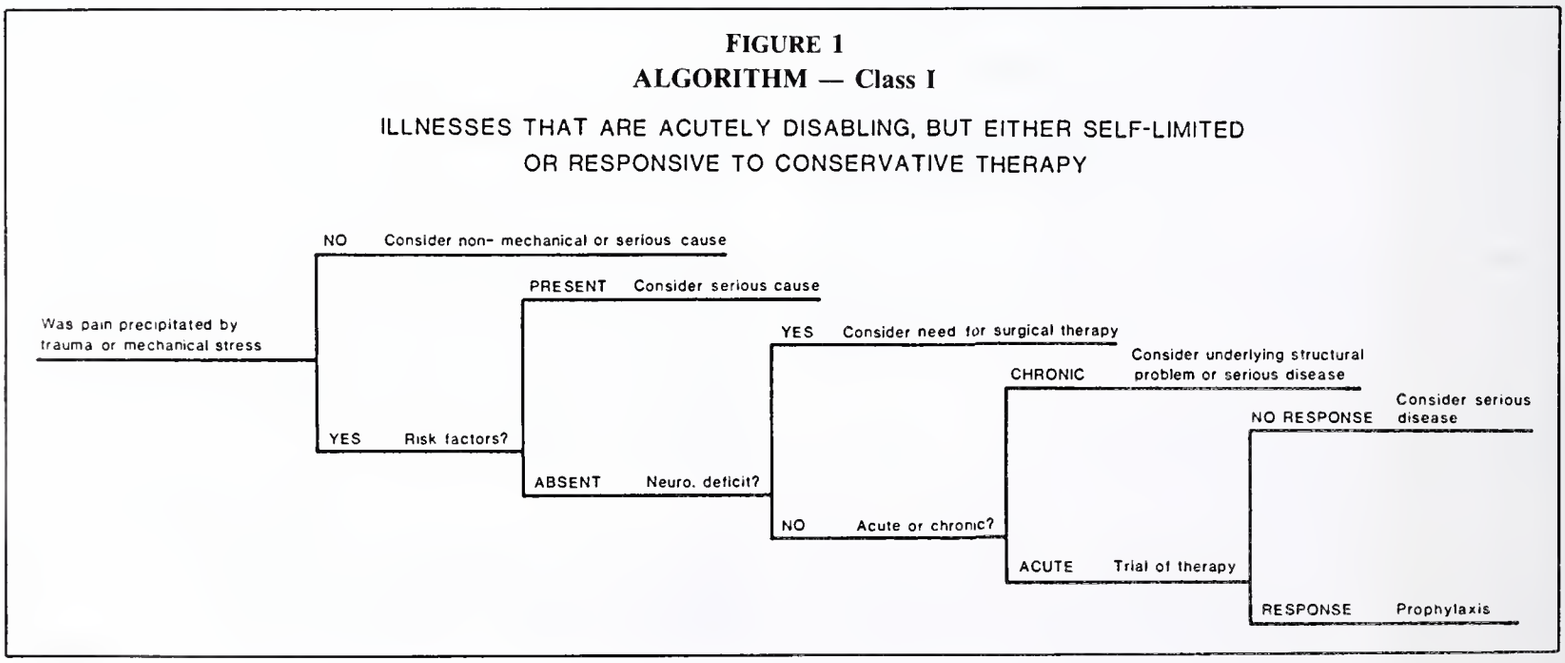


TABLE 3

Class of Illness	Prevalence
I. Illnesses that are acutely disabling, but either self-limited or responsive to conservative therapy.	±91%
II. Illnesses that are potentially life threatening or chronically disabling for which therapy is available and imperative.	± 2%
III. Illnesses that are potentially chronically disabling for which specific therapeutic interventions *may* be indicated	± 7%

TABLE 4
Non-Mechanical Causes of Back Pain

1. **Inflammatory/Infectious**
   - Retroperitoneal abscess
   - Pancreatitis
   - Pelvic inflammatory disease
   - Prostatitis
   - Pyelitis
   - Herpes zoster
2. **Neoplastic**
   - Uterine carcinoma
   - Retroperitoneal lymphoma
   - Pancreatic carcinoma
   - Colorectal carcinoma
   - Prostatic carcinoma
   - Renal carcinoma
3. **Vascular**
   - Aortic aneurysm and dissection
   - Retroperitoneal hemorrhage
4. **Peptic ulcer**
5. **Ureteral colic**
6. **Dysmenorrhea**
7. **Endometriosis**
8. **Ovarian cyst**
9. **Pregnancy**

Unresponsiveness to conservative therapy is considered by most to be an indication for additional diagnostic studies.[3] The potential drawbacks are the serious consequences of a delay in diagnosis and the additional pain and suffering that might have been avoided by a more agressive diagnostic approach.

These are unlikely consequences as the prevalence of serious disease in this group of patients is extremely low, and the probability that an X-ray would identify a lesion, even if present, is considerably less than 100 percent.[2] Thus, delaying X-ray or other diagnostic studies until bed rest and analgesics have been tried is reasonable.

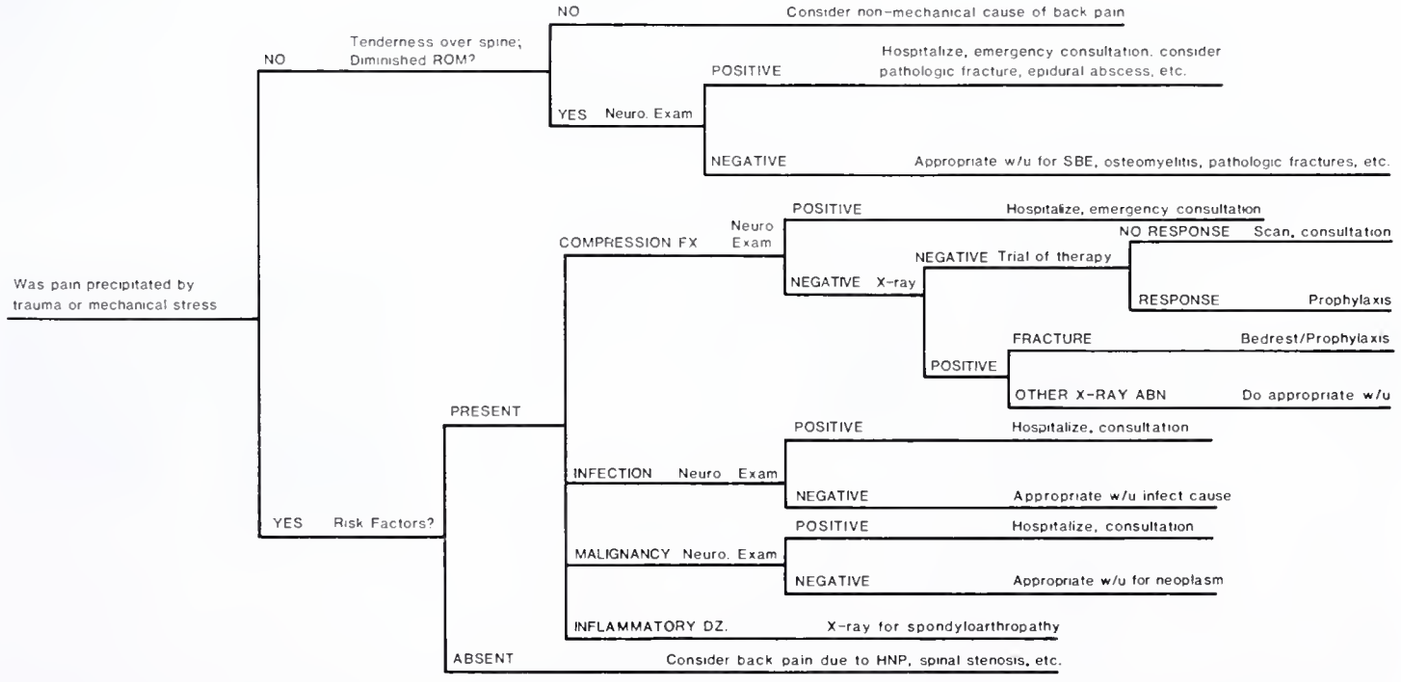
The recurrence rate among first-time sufferers of back pain is high. In the study of Dillane et al., 44.6 percent of those with an initial episode during the study period had a recurrence within four years. This was four times higher than the estimated 11 percent occurrence rate for the population as a whole. Recurrences were unrelated to age, sex, or the presence of referred pain. They were more likely in patients who had definite neurologic deficit and in those whose pain lasted for more than two weeks during the first episode.[4]

Efforts to reduce these recurrences are warranted but whether additional diagnostic studies are useful is unknown. Certainly, multiple recurrences deserve investigation of possible underlying structural abnormalities. Patients with chronic persistent backpain deserve a complete physical examination, X-rays, and orthopedic consultation to rule out serious disease or structural abnormalities.

Identification of Patients Who Have Back Pain Due to Illnesses That Are Potentially Life-Threatening or Chronically Disabling for Which Therapy is Available and Imperative (Figure 2)

Patients with illnesses that are unrelated to the spine or its

FIGURE 2
ALGORITHM — Class II



supporting structures may also present back pain to the physician. These illnesses are listed in Table IV. Back pain due to disease of the spine is usually precipitated by mechanical stress, and will generally improve with bed rest. Back pain, which begins without obvious cause continues at rest and is unrelated to movement, should be considered due to nonmechanical causes.

Pain that is not precipitated by mechanical stress but is worsened during range of motion examination, is accompanied by tenderness or percussion of the spine and is *not* relieved by rest may have a serious underlying cause, e.g., SBE, pathologic fracture, or osteomyelitis. Patients with serious diseases may also present themselves with relatively mild back pain, which responds initially to bed rest. They may be identified by certain risk factors and the lack of progressive response to conservative therapy.[5]

Diagnosis of compression fracture should be considered in any patient who has a flexion-type injury or in patients who are at risk for osteoporosis, such as females over 50 years of age, or patients on long-term corticosteroid therapy. X-rays are definitely indicated and usually diagnostic; however, determining the age of the fracture may be difficult unless old films are available for comparison. As with the above illnesses, compression fractures are often accompanied by tenderness on percussion over the fractured vertebra. This finding is useful also for localizing X-ray studies.

Risk factors for the infectious diseases include fever, weight loss, and anorexia. The use of intravenous street drugs increases the likelihood of osteomyelitis and disc space infections. Subacute bacterial endocarditis is often accompanied by back pain, sometimes for obscure reasons.

A history of cancer (especially breast, lung, prostate, thyroid, and renal ia a clue to metastatic disease, along with the above constitutional symptoms. In patients with these risk factors, X-rays should be considered early in the course of the illness. It should be kept in mind, also, that roentgenograms are often falsely negative, especially during the first few weeks, and that appropriate isotopic scans may be required.[2]

The presence of the significant neurologic deficit in patients with back pain together with the above risk factors demand emergency diagnostic and therapeutic intervention and usually mandate hospitalization and consultation. Thus, doing a careful neurologic examination is critical in this group of patients. A negative neurologic exam allows a more deliberate approach, with hospitalization and consultation dependent on the pain, the presence of tenderness on percussion and the results of X-ray examinations.

Uncommon but therapeutically important causes of back pain include ankylosing spondylitis and other spondyloarthropathies (due to rheumatoid arthritis, inflammatorly bowel disease, Reither's syndrome, etc.) These illnesses are characterized by pain and stiffness of the lower back, which are prominent on arising but which improve with exercise. The onset of symptoms is gradual and the pain has usually been present for at least three months by the time the patient is first seen. Patients are generally under 40 years of age. These conditions are accompanied by typical X-ray changes in the sacro iliac joints.[7]

Indentification of Patients With Back Pain Due to Illnesses That Are Potentially Disabling for which Surgical Intervention May Be Indicated (Figure 3)

Nerve root compression, resulting from a herniated disc, spondylolithesis, or spinal stenosis may result in permanent disability. Surgery, chemonucleolysis, or epidural block may be the treatment of choice in these patients. Thus, identification of this complication is important. It may be identified by pain radiating down the sciatic nerve, positive response to traction maneuvers, or deficits noted on neurologic examination.

Sciatic pain is low back pain that radiates into the lower leg, foot, or both. It may be described as shooting, burning, or sharp. It is often worsened by cough, sneeze, or strain.

Traction maneuvers are useful when positive, but their absence does not rule out nerve root impingement. Straight leg raising is positive if radicular symptoms are precipitated when the affected leg is raised to 45 degrees. Crossed leg raising is positive if the radicular symptoms are precipitated when the opposite leg is raised.

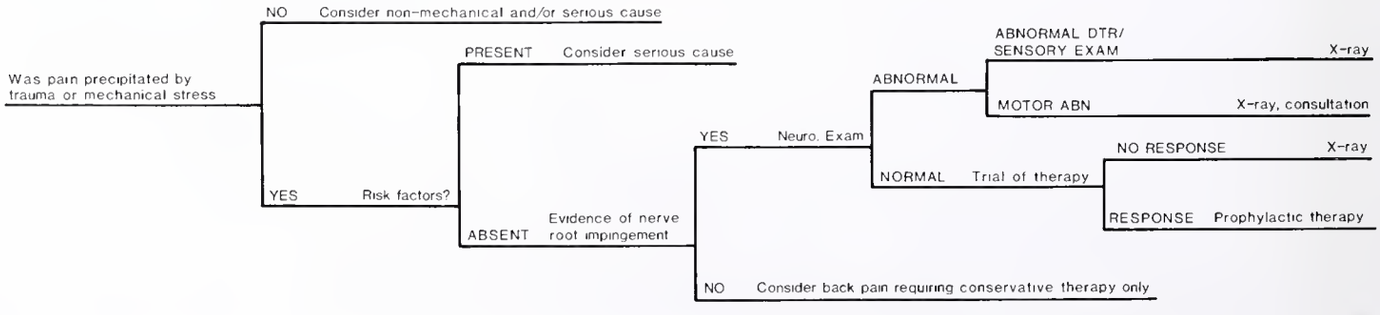
Although X-ray examination may be a reasonable next step if sciatica and traction manuevers are present or positive, neither finding mandates hospitalization or consultation. If serious disease is ruled out, conservative therapy is almost always suggested. It is the neurological examination that dictates whether surgical intervention should be considered. A screening neurologic examination should include the following:

- Deep tendon reflexes at knee and ankle.
- Testing of motor function of foot, to include dorsiflexion, inversion, and eversion of foot (this may be done simply by asking the patient to walk on his or her toes and heels) and dorsiflexion of big toe.
- Sensory examination of those patients who have noted paresthesias or other sensory dysfunction.

Common neurologic abnormalities associated with root

FIGURE 3
ALGORITHM — Class III

ILLNESSES THAT ARE POTENTIALLY DISABLING FOR WHICH SURGICAL INTERVENTIONS MAY BE INDICATED



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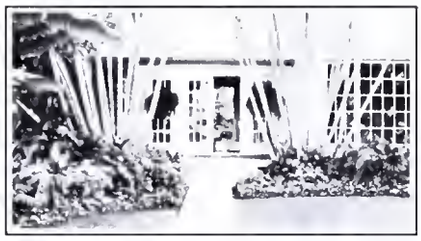

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Kailua	3 bdrm, 2 bath, large family room, large lanai. 10,500 sq. ft.	$198,000 (FS)
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lesions are illustrated in Figure 4.

Foot drop or other significant motor loss is an indication for prompt referral to an appropriate specialist. Consultation may also be appropriate where lesser degrees of motor weakness are present; however, surgery may not be necessary or desireable in this instance.[5]

Discussion

Since the beginning of our profession, physicians have made decisions under conditions of uncertainty. In the past few years, however, the pressures to improve our diagnostic accuracy have increased so dramatically that finding ways of doing so are critical. A tool that identifies important decision points and defines what knowledge is needed to guide this decision is potentially useful.

A strategy algorithm has been utilized to illustrate the decision-making process. Ideally, it would describe the exact steps a physician should take in caring for a particular patient. Unfortunately, it is not possible to generalize about a process that requires an individualized approach each time it is utilized.

The value of a strategy algorithm lies in the way in which it defines the basic data required to make decisions, illustrates a stepwise approach to a final therapeutic conclusion, explores the need for more diagnostic information, and outlines the consequences of its collection. It is most useful when these consequences can be predicted with accuracy.

The rules we have described for making predictions in patients with back pain (clinical prediction rules) have not been validated by careful epidemiologic study. Diehl and Deyo tested a similar group of risk factors and found them to be sensitive (i.e., they identified 100 percent of patients with serious disease) when considered as a group and used as criteria for the use of X-rays.

They were not able, however, to determine the predictive value of specific signs and symptoms such as the presence of fever, history of drug abuse, unexplained weight loss or the use of steroids. The potential value of this type of data is obvious; however, until it is available, clinicians will continue to be dependent on their intuition to help with individual decisions.

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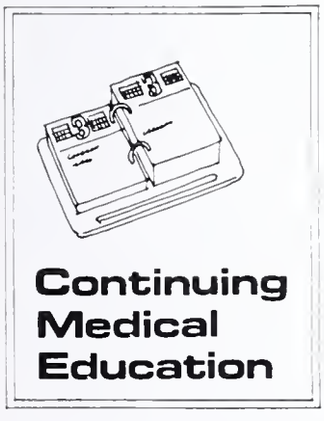

CALENDAR OF ACCREDITED EVENTS—CATEGORY 1

Accredited Programs of CME allow one unit of AMA credit for each hour of instruction excluding all "breaks." Some programs also are accredited for AAFP prescribed credit.

LOCAL ACCREDITED PROGRAMS

ONGOING

For a complete list of ongoing programs, please refer to the September 1985 issue of the HAWAII MEDICAL JOURNAL. Further information is available through the individual institutions or through the HMA's CME Department.

SPECIAL EVENTS

All special events should be confirmed with the CME program sponsors, as cancellations are not necessarily reported to the HAWAII MEDICAL JOURNAL.

Dec. 21-27, 1986	Allergy, Immunology and the Practicing Physician, Symposium Maui Inc., Joe Harrison, MD, P.O. Box 10185, Lahaina 96761, (808) 661-8032. Location: Royal Lahaina, Kaanapali, Maui.
Dec. 27, 1986 - Jan. 3, 1987	Advances in Internal Medicine, University of Washington School of Medicine, Continuing Medical Education, Health Sciences Center E-303, Seattle, Wash. 98195, (206) 543-1050. Location: Sheraton Kauai.
Dec. 28-1986 Jan. 3, 1987	Psychiatry and the Practicing Physician, Symposium Maui Inc., Joe Harrison, MD, P.O. Box 10185, Lahaina, HI 96761, (808) 661-8032. Location: Royal Lahaina Resort, Maui.
Jan. 7-14, 1987	A Conference On Love and Sexuality, and On Women and Men as Loving Allies, Dr. Joyce Jennings, president, HPI, P.O. Box 226, Claymont, Del. 19703, (302) 475-0693. Location: Turtle Bay Hilton, Oahu.
Jan. 18-24, 1987	ACOG CME, American College of Obstetricians and Gynecologists, 600 Maryland Ave. S.W., Washington, D.C., 20024, (202) 638-5577, Dr. Harrison C. Visscher. Location: Kauai.
Jan. 26-30, 1987	Fifth Annual Hawaii Conference on Gas-trointestinal and Hepatic Disease, Honolulu Medical Group Research and Education Foundation, Gary Glober, MD 1380 Lusitana St., Honolulu 96813. Location: Hyatt Regency Maui.
Feb. 1-7, 1987	Eighth Annual Royal Hawaiian Eye Meeting, Hawaiian Eye Foundation, John Corboy, MD, 606 Kilani Ave., Wahiawa 96786-1993, (808) 621-8448. Location: Kona Surf, Big Island.
Feb. 17-21, 1987	Current Problems in Internal Medicine, William L. Nietz, Division of Education, Mayo Clinic, Rochester, Minn. 55905, (507) 284-2085. Location: Maui Marriott.

Over the Editor's Desk

CHATTANOOGA CORP. HAS INTRODUCED A NEW COMPREHENSIVE CONTINUOUS PASSIVE MOTION UNIT—Continuous passive motion has recently emerged as a therapy in postoperative procedures for the hip or knee joint. Clinical studies have shown that key patient benefits from this therapy are increased range of motion, reduced edema, and a shorter hospital stay. AutoFlex II offers the most asked-for features in combination with a price far below most comparable units on the market today. AutoFlex II is easy for the therapist or patient to use. No modification is required for left or right leg application and the unit has an adjustable thigh segment that allows adjustment to conform to the height of the patient. Low voltage (24v) electric components are utilized in the unit for safe operation. AutoFlex II allows hyperextension (minus 5 degrees) to full knee flexion. Inexpensive AutoFlex II liners are available for single patient use. For information on AutoFlex II, contact Chattanooga Corp., 1-800-582-7329, Chattanooga, Tenn. 36405.

NURSING STUDY EXAMINES BURNOUT AND THEFT— The "average" nurse in a recently released study extended her work breaks each week without authorization by more than 25 minutes. All nurses anonymously completed both the Personnel Selection Inventory (PSI), published by London House Inc., and the Staff Burnout Scale for Health Professionals, developed by Jones. They anonymously completed behavioral checklists that measured how many minutes a week they typically extended, without authorization, both their work breaks (i.e., lunch/supper breaks). The major results revealed that nurses who extended their work breaks without authorization were more burned-out than nurses who strictly adhered to their work-break schedules. Possibly, work-break extensions reflect the nurses' need to get away from dealing with patients and other job responsibilities or their need to take extra time to unwind and recover from especially stressful periods at work. Copies of this study are available from London House Inc., 1550 Northwest Hwy., Park Ridge Ill. 60068.

ANAYTICAL GRAPHICS USED IN WRITING OF SCIENTIFIC ARTICLES — A scientific graphing program for the Apple IIe and IIc has been published by Scientific Software Products since 1983. The new, enhanced version of the program brings extensive graphic capabilities to the existing HSD line of statistical analysis software. The dropping of copy protection is a direct response to customer requests for programs that can be backed up and used with RAM disks and hard disks. Analytical Graphics, Version 3, utilizes either 64k or 128k in an enhanced Apple IIe or IIc. Analytical Graphics offers scientific graphics and a data base and is easier to use than pencils and graph paper. It is a sophisticated system that was written by a biochemist for research and data analysis. It is a Cartesian coordinate graphics system that automatically generates a graph in standard scientific format from any list of data.

Analytical Graphics is a powerful research tool. After entering data, a scientist can save it, retrieve it, and compare it visually with any other data set. Scientists and businessmen can use the provided functions for error bars, smooth-

ing, interpolations, and linear regression. A set of standard routines allows the user to read interpolations, derivatives, and integrals directly from the graph itself.

In addition, the autoscaling feature permits plotting an infinite number of data sets on the same graph. It also ensures that all of the graphs are drawn to the proper scale. Analytical Graphics is easy to learn and use. The program presents a series of option screens for the selection of bar graphs, point graphs, symbols, error bars, interpolation modes, decimal, integer, and logarithmic scales. Changing the format of a graph takes only a few seconds. Analytical Graphics is priced at $150 complete, for use with the Apple IIe enhanced, or the Apple IIc with two disk drives, Apple DOS 3.0 and an optional Epson printer.

CORONARY HEART DISEASE IS THE NO. 1 KILLER OF AMERICANS STRIKING MORE THAN 63 MILLION PEOPLE EACH YEAR—But there is good news: Long-term epidemiological studies conducted with Eskimo, Dutch, and Japanese, all of whom eat a diet high in cold-water oily fish rich in the two omega-3 fatty acids EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid), showed that these groups had a lowered incidence of coronary heart disease. The omega-3 fatty acids get their name from their molecular structures and are found primarily in cold-water oily fish such as sardines, salmon, tuna, mackerel, and herring.

Americans consume only 14 pounds of fish per year, as compared with the Eskimos, who consume an average of 300 pounds of fish per year. But, even at two servings of fish a week, the average American diet is still not likely to contain as much of these omega-3 fatty acids as the Eskimo diet.

A new dietary supplement called Promega might help. Introduced this month by consumer health products group of Warner Lambert under the Parke-Davis trademark, Promega is a sensible addition to a total coronary preventive dietary plan. (From Cohn & Wolfe.)

THE LABORATORY BLOOD BANK AT ST. FRANCIS HOSPITAL, UNDER THE DIRECTION OF YOUNG K. PAIK, MD, HAS BEEN GRANTED RENEWAL OF ACCREDITATION BY THE AMERICAN ASSOCIATION OF BLOOD BANKS— It is not legally necessary for a blood bank to be accredited, but the facility has sought accreditation because it represents a level of professional and technical expertise and assures the ability to provide higher-quality blood, blood components, and other services to patients.

NO MORE THAN EIGHT PERCENT OF PSYCHIATRIC PATIENTS REPORTED HOSPITALIZED AT ANY ONE TIME IN U.S.S.R.— From CNS Newstips, The Upjohn Co. According to a report from the Bekhterev Scientific Institute for Psychoneurological Research in Leningrad, no more than eight percent of psychiatric patients in the Soviet Union are hospitalized at any one time. That dramatically low figure was achieved through the establishment over the last 20 years of a nationwide network of psychoneurological dispensaries — in effect, outpatient clinics.

Treatment is based on a system of ongoing study and follow-up care that permits active intervention when the patient's condition warrants it. The partial hospitalization program includes sheltered workshops and both day and night hospitals, all supervised by the dispensaries which are, in turn, linked to major medical facilities.

Most of the direct contact with patients in the psychoneurological dispensaries is handled by district physicians and nurses, with the emphasis on partial hospitalization whenever possible. The Soviets say the system is quite effective, more acceptable to the patient and cost-effective.

PERMARK EQUIPS BREAST-RECONSTRUCTION SPECIALISTS WITH A METHOD TO MATCH AREOLA NIPPLE COLOR WITHOUT PREVIOUS PROBLEMS— From Silverman, Heller Associates. Matching the areola nipple color on a reconstructed breast to the other breast, following mastectomy, is being accomplished successfully by tattooing pigment for the reconstructed areola nipple. The surgical pigmenting instrument used is the Permark Enhancer made by Permark Corp., Glenpointe Centre East, Teaneck, N.J. 07666.

According to the latest available figures from the U.S. Department of Health and Human Services, 100,000 breast reconstructions were being performed in the U.S. in 1984.

LUNG CANCER DECLINES AMONG WHITE MALES—From Hawaii Cancer Infoline. For the first time in half a century, the incidence of lung cancer has dropped significantly for white men in the U.S. The dramatic decrease in new lung cancer cases in white men was attributed for the most part to a sharp decrease in smoking that began more than two decades ago.

"This proves that people can successfully reduce their cancer risk by quitting smoking or not taking up the habit," said Dr. Vincent DeVita Jr., director of the National Cancer Institute, which issued the report.

By the same token, a six percent rise in lung cancer among women was attributed to increased smoking by young women.

HEALTH INSURANCE — From the Honolulu Star-Bulletin. Although many of them are employed, millions of Americans have no private or government-sponsored health insurance. Some small companies and self-employed persons are unable to pay rising premiums. Also excluded are children of workers who have dropped their dependents from insurance coverage because of the cost.

And the numbers of uninsured are rising. There were about 28.6 million uninsured in 1980 and 35 million in 1984.

Moreover, crackdowns by government and private insurers have made it difficult for hospitals to pay for the treatment of the uninsured by charging other patients more. One study found that about one million families were refused medical care for financial reasons in 1982.

There is a joint federal-state program, called Medicaid, to assist the medically indigent. But Medicaid now covers only 46 percent of all poor families, compared with 63 percent in 1975.

The cost of medical care has soared far ahead of other living costs in recent years, and the need to control that cost is widely recognized. But we must not achieve economies at the expense of the health of our neediest citizens.

No one should have to go without medical care in this country because he or she can't afford it. The Medicare program must be given the resources it needs to provide for those now going without treatment.

U.S. AIDS UPDATE — Between June 1, 1981, and Jan. 13, 1986, physicians and health departments in the United States notified the Centers for Disease Control of 16,458 patients (16,227 adults and 231 children) meeting the acquired immunodeficiency syndrome (AIDS) case definition for national reporting. Of these, 51 percent of the adults and 59 percent of the children are reported to have died, including 71 percent of patients diagnosed before July 1984. The number of cases reported each six-month period continues to increase although not exponentially, as evidenced by the

lengthy case-doubling times.

REVISED NHBPEP STATEMENT ON DEVICES USED FOR SELF-MEASUREMENT OF BLOOD PRESSURE— National Heart, Lung, and Blood Institute — The state of the art regarding devices for the self-measurement of blood pressure is represented in this newly released statement available from the National High Blood Pressure Education Program (NHBPEP), 120/80 National Institutes of Health, Bethesda, Md. 20892. The reliability of stationary or coin-operated devices is considered limited. Users of these devices are encouraged to seek professional advice before taking any action as a result of a blood pressure reading from one of these machines.

HOSPITAL RECYCLES BLOOD FOR HEART SURGERY PATIENTS— American Hospital Association — Concerned about the safety of the blood supply and the potential for periodic blood shortages, Fairfax Hospital, Falls Church, Va., recently began to recycle this life-giving fluid. Using a new technique called cardiotomy reservoir chest drainage, physicians have been able to recycle more than 85 percent of the blood typically lost during open-heart surgery. This has been accomplished by pumping the hemorrhaging blood from the chest cavity through a filter and back into the patient's chest cavity.

EAR "TUBE" OPERATION MAY BE UNNECESSARY WITH PROPER ANTIBIOTIC MANAGEMENT, TREATMENT AND PROPHYLAXIS— Beecham Labortories — Charles D. Bluestone, MD, director of the Otis Media Research Center in Pittsburgh, Pa., says that the insertion of "tympanostomy tubes" has become the common surgery performed on children in the United States, prompting some physicians to call it the "tonsillectomy of the '80s." The average cost of each procedure is $1,000. The tubes are used primarily to ventilate the middle ear after fluid has been removed in an effort to prevent permanent hearing loss and scarring in the middle ear. The tubes often are inserted after many courses of antimicrobial therapy have failed to cure recurrent ear infections. "The use of the right antibiotics should result in a reduction of the number of patients subjected to tympanostomy tube surgery." Such an antibiotic is now available. AugmentinR (amoxicillin/clavulanate potassium) combines the world's first beta-lactamase inhibitor — clavulanate potassium — with amoxicillin. The new antimicrobial was developed and is marketed in the United States by Beecham Laboratories of Bristol, Tenn.

THE WAIANAE COAST COMPREHENSIVE HEALTH CENTER— is the only such entity in the State of Hawaii and one of four in the entire country. It is a federally funded (subsidized) medical clinic, that requires — and receives — approval of, and support for, its grant application from the Honolulu County Medical Society.

STRAUB FOUNDATION HAS GIVEN ITS EXCELLENCE IN RESEARCH AWARD TO ROBERT A. NORDYKE, MD— a specialist in nuclear medicine. Nordyke's paper, one of five submitted for judging, described the relationship between age, signs and, symptoms of hyperthyroidism.

EG AND G'S PUBLICATION, SCIENCE AND TECHNOLOGY UPDATE— describes "Nova," the world's most powerful laser, housed at the Department of Energy's Lawrence Livermore National Laboratory in California.

Nova is named for an exploding star; its heart is a 16-foot-in-diameter aluminum sphere wherein small pellets of heavy isotopes of hydrogen are made to fuse by intense laser light pulses, generating heat of greater than 100 million degrees for a few billionths of a second, releasing energy equivalent to what comes out of the sun and stars. "The present and near future goal of this research is that Nova can be a tool for studying weapons physics . . . but the ultimate goal is . . . to generate controlled and nearly inexhaustible electrical energy on earth."

HALF OF THE 56 STUDENTS ADMITTED TO MEDICAL SCHOOL AT THE UNIVERSITY OF HAWAII THIS YEAR WERE RE-APPLICANTS— and Dr. James W. Linman, chairman of admissions, believes he may discern a trend toward somewhat fewer acceptances of first-time applicants.

This year's entering class revealed the expected undergraduate concentration in the sciences (27 in biology alone). It is composed predominantly of Hawaii residents (53) who attended Hawaii high schools (47) and more than half of whom (35) did their undergraduate work at the University of Hawaii.

A FREE COMIC BOOK FROM THE CANCER RESEARCH CENTER OF HAWAII MAY SAVE YOUR SKIN— Keeping in shape not only means eating properly and exercising regularly, but keeping your skin in shape, too. Being out in the sun increases your chances of premature aging and skin cancer.

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At the Muscular Dystrophy Association, we're striving to put an end to twelve forms of muscular dystrophy and twenty-eight other neuromuscular diseases. Because we believe there are no incurable diseases—just diseases for which cures haven't yet been found. And because it's the only way that tens of thousands of people with neuromuscular disease can look forward to a better tomorrow.

MDA

Muscular Dystrophy Association, Jerry Lewis, National Chairman

The Hawaii Cancer Information Service will send you a free comic book called "The Incredible Adventures of the Howzit Family." Call 524-1234 for your free copy between 8:30 a.m. and 4:30 p.m. weekdays. Neighbor Island residents may call collect by dialing 524-1234. Mailing address is 1236 Lauhala St., Suite 502, Honolulu 96813.

All skin types are at risk for skin cancer. So let the Howzit Family show you how proper skin protection and effective sunscreens can help take care of your skin. The booklet was drawn by well-known local artist Harry Lyons specifically for Hawaii people.

SURGICAL STAPLING IS THE FASTEST-GROWING SEGMENT OF THE WOUND CLOSURE MARKET— The procedure saves time in the operating room and is an improved method for some types of surgery, particularly colorectal anastamosis, according to Theta Corp. Surgical stapling currently accounts for an estimated $250 million annual market, and is growing at a healthy rate.

THERE ARE CURRENTLY 450,000 PHYSICIANS IN THE U.S., OF WHICH 55 PERCENT (250,000) ARE IN SOLO OR GROUP PRACTICES— The number of group practices is growing at a rate of 12 percent annually, and is expected to reach 30,000 by 1990, according to Theta Corp.

CARE FOR THE INDIGENT IS A GROWING CONCERN, SAYS THE AMERICAN HOSPITAL ASSOCIATION— Despite the creation of Medicaid 20 years ago, the number of individuals who have inadequate, or no, health insurance is reaching record proportions. Many Americans assume that Medicaid covers the health care needs of the indigent, but consider:

- Medicaid coverage of the poor has declined sharply. By 1984, Medicaid covered less than 40 percent of the poverty population, compared with nearly 70 percent when the program began.
- The number of uninsured is increasing. By 1984, nearly 33 million people had no health insurance and another 17 million had inadequate coverage, representing about 25 percent of the nonelderly U.S. population.
- Contrary to popular belief, most of the uninsured are employed. About 65 percent are working adults or their dependents.
- The amount of uncompensated care provided by hospitals is rising, amounting to $5.7 billion in 1984. Because the major sources of hospital financing (gov-

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	329-5291 (Kailua-Kona)

HMSA's Place of Treatment Program saves your patients money. Call us for details.

ernment and private payers) are less willing to subsidize care for the medically indigent, the care is being provided by fewer hospitals. As a result, the ability of these hospitals to subsidize the cost of indigent care has diminished. Currently 5 percent of hospitals provide 37 percent of all uncompensated care.

KUAKINI GERIATRIC CARE INC. OFFERS A SERVICE— that allows people who care for the elderly at home to take a vacation without having to worry about the welfare of the elders.

Elders who are ambulatory but need supervision will be able to live in Kuakini Home on a temporary basis.

For more information on this short-term respite care service, call Kuakini Home at 547-9208 between 8 a.m. and 4:30 p.m. on weekdays.

THERE'S GOOD NEWS FOR LEUKEMIA PATIENTS— who frequently have to undergo painful bone marrow tests to monitor the disease. A new blood test that measures levels of an enzyme known as terminal deoxynucleptidyl transferase (TdT) enables physicians to continuously monitor leukemia patients without taking bone marrow specimens. Furthermore, the test is highly cost-effective because bone marrow aspirations average $110 and the blood test costs $35. Write Abbott Laboratories at Abbott Park, Ill. 60064 for further information.

UNLOCKING THE SECRETS OF THE IMMUNE SYSTEM IS LEADING TO REVOLUTIONARY NEW VACCINES— A birth control vaccine, one of the first in the world to reach the clinical trial stage, will be discussed at the Sixth International Congress of Immunology in Toronto July 6 through 11.

The vaccine, which is being tested on women in Australia, evolved from research coordinated and sponsored by the World Health Organization. It was developed by Dr. Vernon Stevens of Ohio State University. The human trials are being supervised by Dr. Warren Jones at the Flinders Medical Centre in Adelaide, Australia. Both doctors will be among the more than 8,000 scientists attending the congress.

The vaccine prevents pregnancy by neutralizing a hormone called human chorionic gonadotrophin (hCG) produced by the body soon after fertilization and is essential for maintaining a pregnancy. The immune system plays an important role in producing hormones that prevent the mother from rejecting her fetus. By blocking this particular hormone, the reproductive process cannot continue.

HMA Auxiliary

The cost today of providing medical education and supporting research is staggering. Medical schools are currently in great need of funding due to continually escalating costs and declining revenues. Reductions in federal funding and the overall economic slump of the country have severely affected medical schools. The situation threatens the quality of medical education in our county and also our state. Consequently, these institutions must depend increasingly on private sources to meet their needs.

The American Medical Association Education and Research Fund (AMA-ERF) was established more than 35 years ago to help support quality education in the nation's schools. From modest beginnings in 1950, the foundation has distributed a total of more than $40 million in loans benefiting more than 40,000 medical students, interns, and residents, and supported numerous research projects.

The AMA-ERF has several different funds. The Medical School Excellence Fund provides grants to medical schools to use as they see fit. The Medical Student Assistance Fund provides funds to medical schools for student financial aid. Since the AMA-ERF is a 501 (c) 3 nonprofit organization all donations are 100 percent tax deductible.

Regardless of the fund the donor chooses, the funds may be stipulated for use by the donor's alma mater, a medical school of his or her choice, or for all the medical schools in the United States.

This year the Hawaii Medical Association Auxiliary is participating in what has been the most successful auxiliary fundraising project for AMA-ERF across the nation. The Holiday Sharing Card last year raised over $750,000 nationally with only 30 percent of all counties and states participating. Hawaii will participate statewide on this project.

It's an uncomplicated way for medical families to handle the remembrances of the season. Its selling point is that donors need not send individual greeting cards to each other, the Sharing Card wishes a "Happy Holiday" to all, while at the same time contributing to medical education and research. The future success of AMA-ERF depends on the continuing generosity of its medical families. Please support this project when approached by the Auxiliary.

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